

•How It Is Is Not How It Has To Be.

- Richard Joseph Jackson, MD,
MPH

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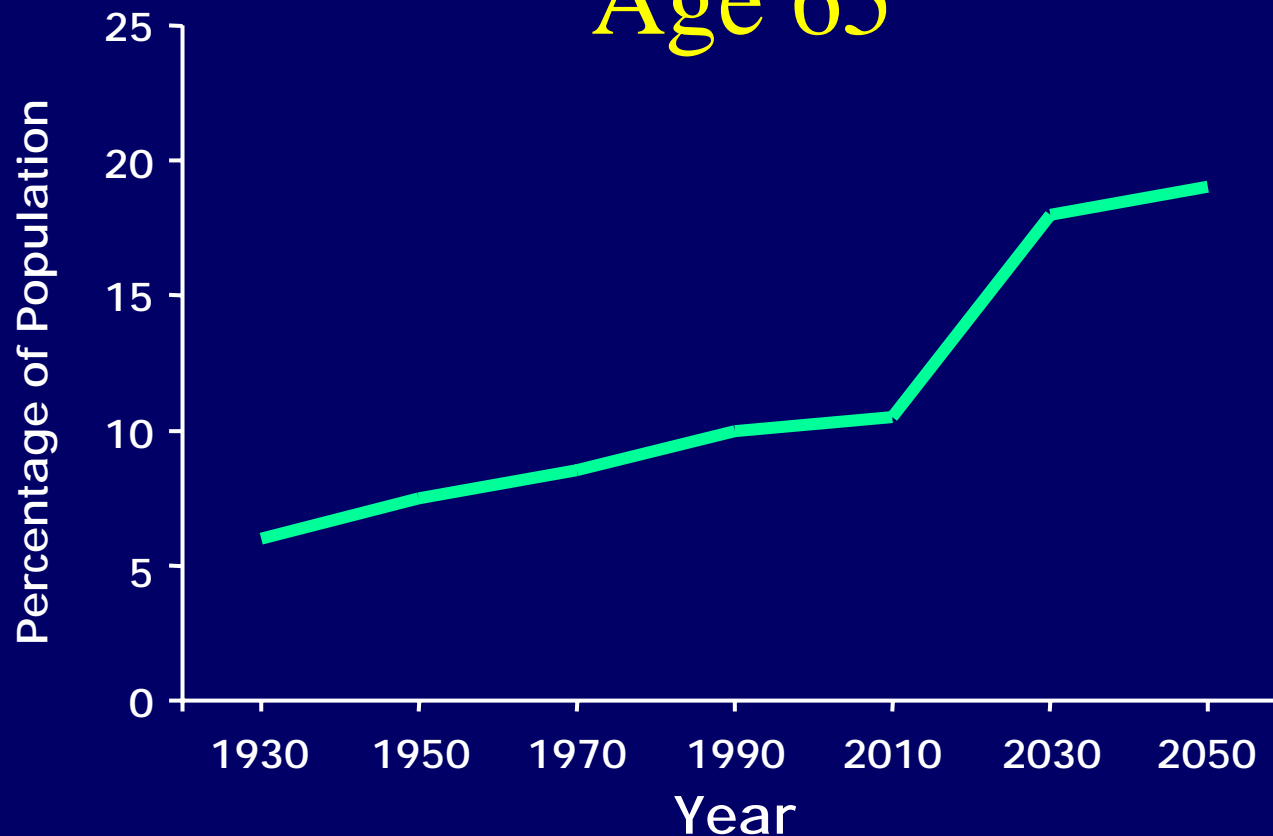
RJacks06@dhs.ca.gov

Disease in the 21st Century

- Diseases and costs of care for Aging Populations.
- Overweight: Diabetes II, Heart Disease
- Mental Disorders: Depression, Anxiety, Developmental, Substance Abuse
- Macro-environment: Climate, Conflict

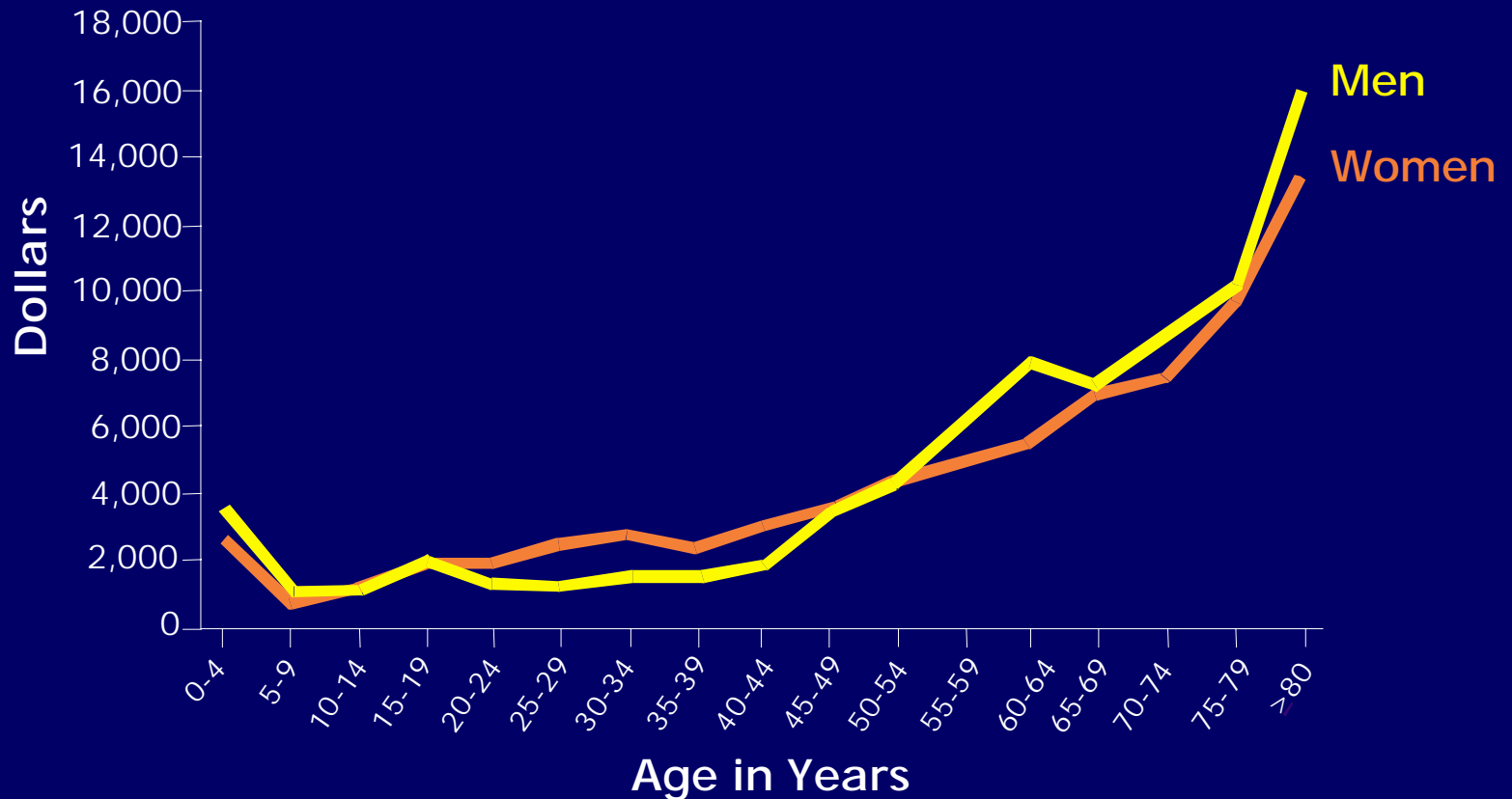
An Aging Population

Percentage of U.S. Population over Age 65



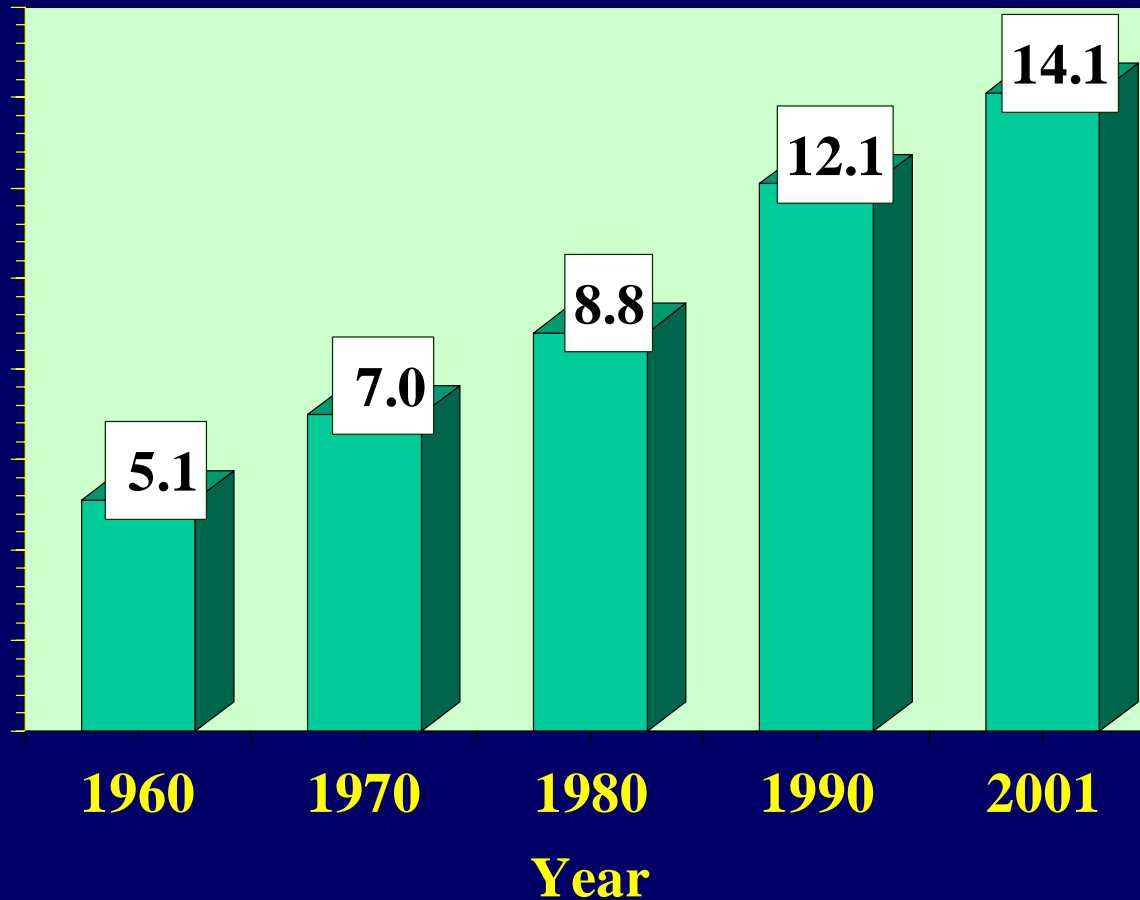
Source: From Baby Boom to Elder Boom: Providing Health Care for an Aging Population
Copyright 1996, Watson Wyatt Worldwide.

Estimated Per Capita Health Expenditures by Age and Sex, 1995



Source: From Baby Boom to Elder Boom: Providing Health Care for an Aging Population
Copyright 1996, Watson Wyatt Worldwide.

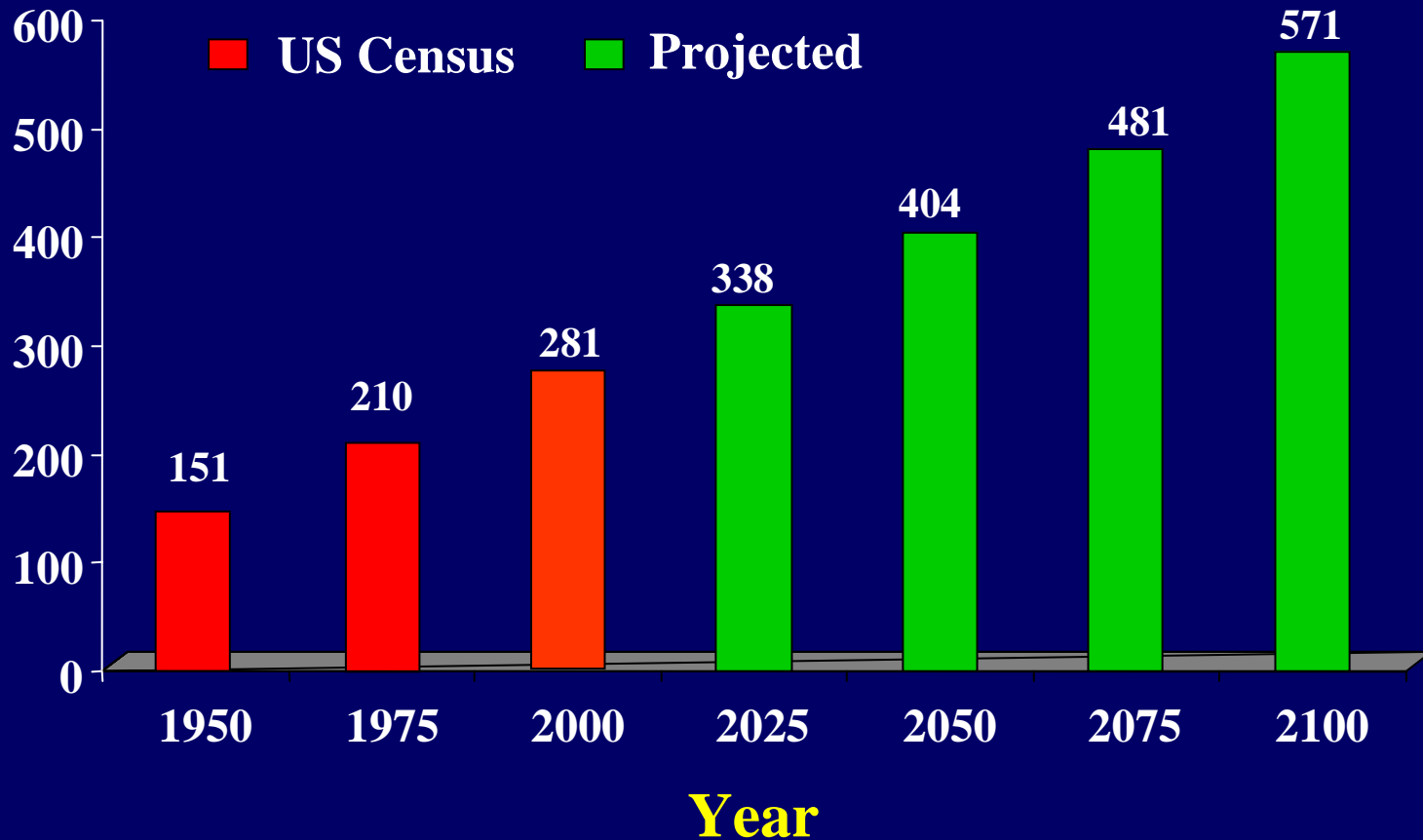
US Health Care Expenditures as Percent of GDP 1960 to Present



**\$1.4
Trillion
out of
\$10.08
Trillion
GDP in
2001**

U.S. Population, 1990-2100

Number in millions

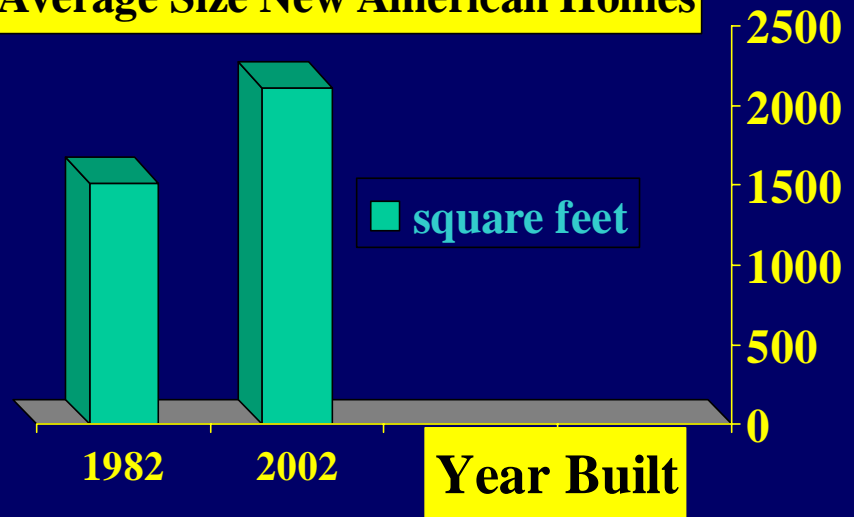


Source: U.S. Census Bureau

We Super-size Our Homes



Average Size New American Homes



We Super-size our Neighborhoods

We Super-size Land Consumption

We Super-size our Vehicles

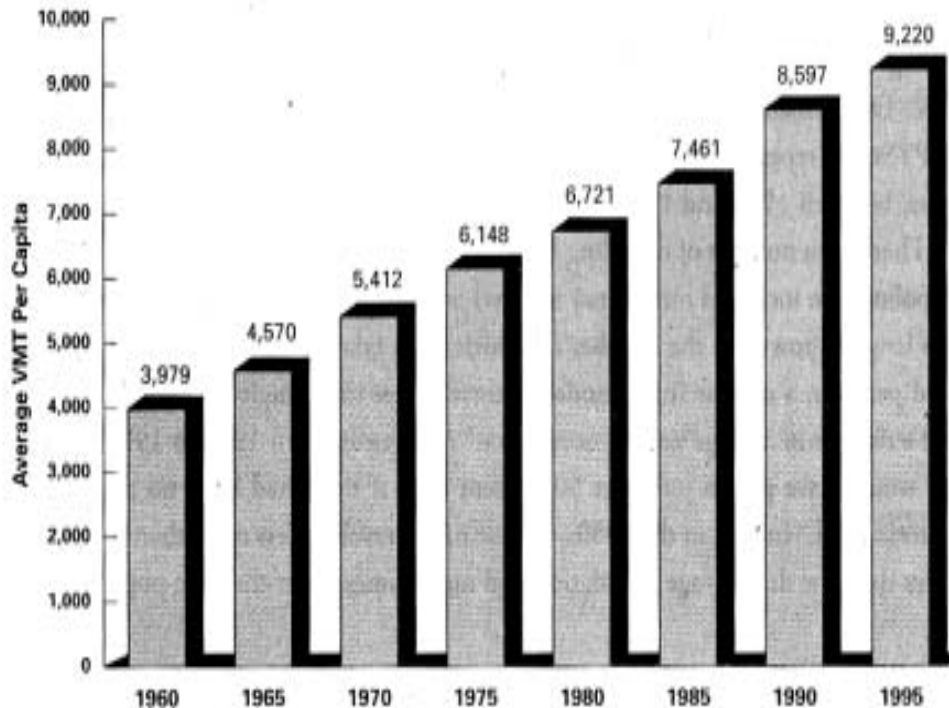


We Super-Size our Vehicle Travel

Figure 2-2

Vehicle Miles Traveled (VMT) Per Capita, 1960–1995

Source: Bureau of Transportation Statistics, U.S. Department of Transportation, *National Transportation Statistics 1998*, Washington, DC: 1998, Table 4-12; U.S. Bureau of the Census, "Historical National Population Estimates," Washington, DC: April 2, 1998.



Miles per Capita: 1960 to 1995

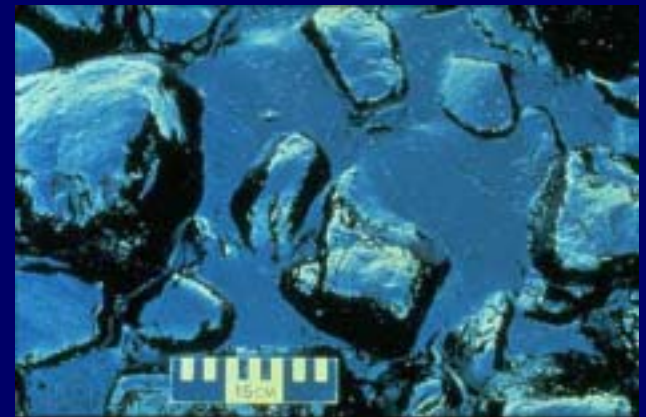
From 4000 to 9200
VMT per person

We Super-size ‘Impervious Surfaces’– In US equiv to GA

Chamblee, GA Runoff to North Peachtree Creek

Urban Runoff -- Nonpoint Source Pollution

- Every eight months, runoff from US roads and parking lots carries as much oil into the oceans as did the spill from the Exxon Valdez -- 10.9 million gallons

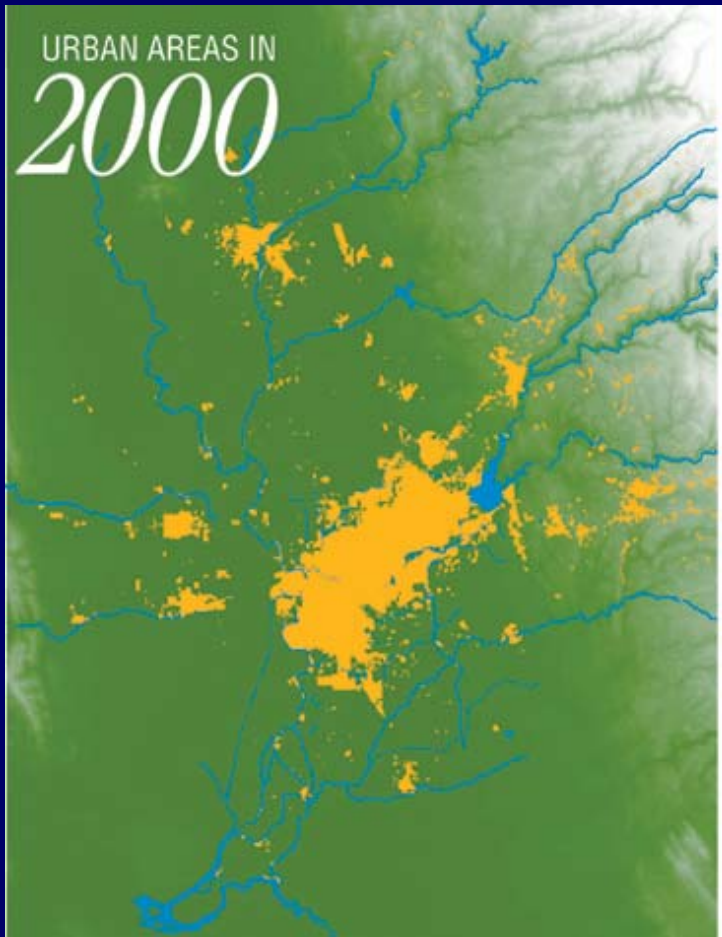


NRC “Oil in the Sea III” 2002

We Super-size Land Development in the US

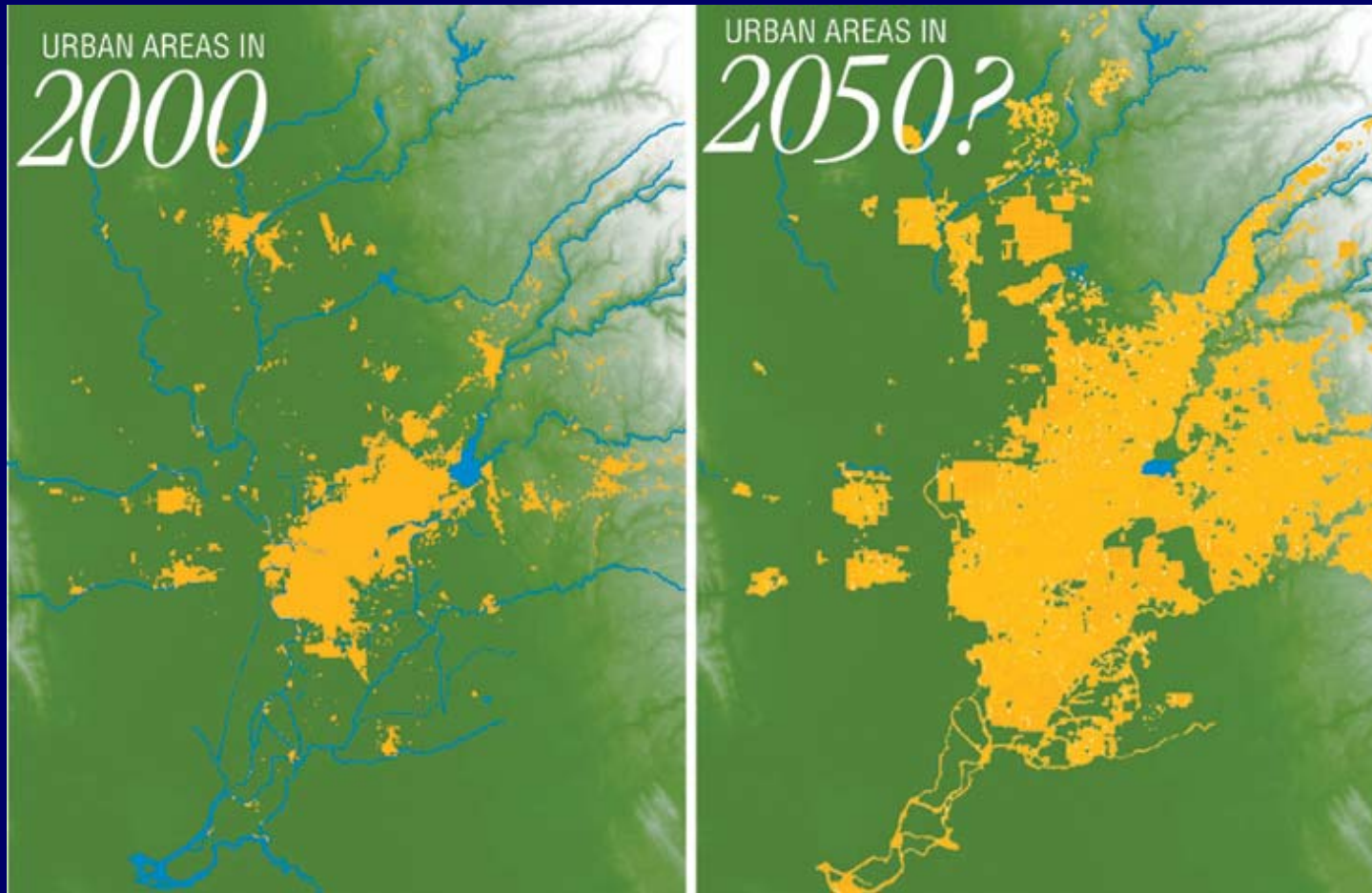
- More than 25% of US Land Development has been in just the last 15 years.

We are Super-Sizing our Communities



Current
Sacramento
“Foot Print”

If Current Sacramento Development Trends Continue



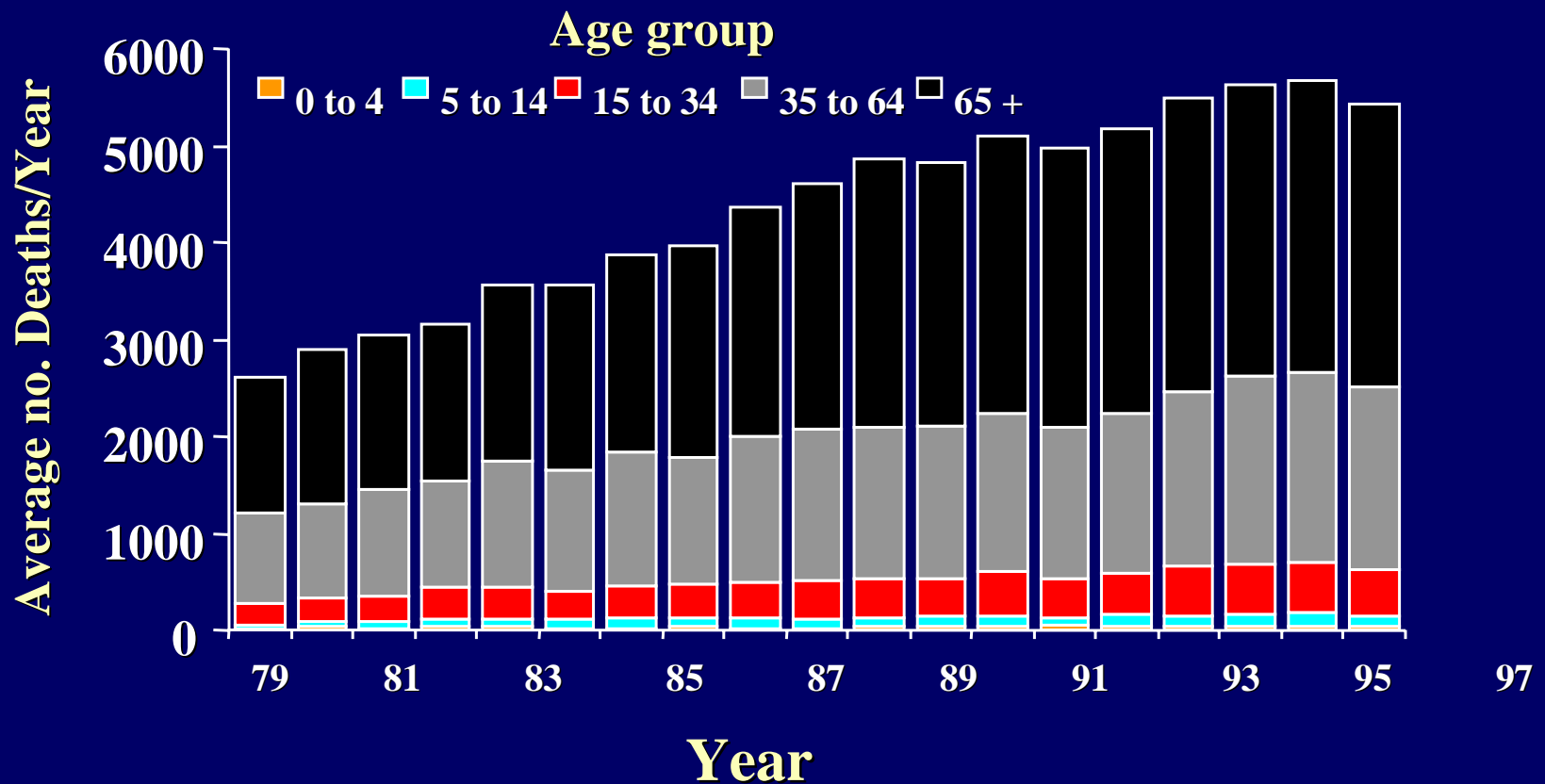
“Developing” California



**California Paves or Builds
on over 400 acres every day**

Deaths Due to Asthma

United States, 1979-1997





Impact of Changes in Transportation and Commuting Behaviors During the 1996 Summer Olympic Games in Atlanta on Air Quality and Childhood Asthma

Michael S. Friedman, MD

Kenneth E. Powell, MD, MPEH

Lari Hartwegner, MS

Lefley M. Graham, MD

W. Gerald Tsao, MD

DEPISTEMIC ADVANCES IN ASTHMA therapy, asthma remains a substantial public health problem. In the United States, asthma is a leading cause of childhood morbidity, with an estimated prevalence of 8.9% in children and youth younger than 18 years.¹ Numerous studies have documented a rise in the morbidity, mortality, and prevalence of asthma in different populations.²⁻⁶ The cause or causes of this trend remain controversial.⁷⁻¹¹

Experimental, laboratory, and epidemiologic studies in the last several years have linked high concentrations of known air pollutants to respiratory health problems, most notably exacerbations of asthma.¹²⁻²³ However, opportunities to study the health effects of anthropogenic improvements in air quality are rare. One study found a decrease in pediatric asthma and respiratory hospital admissions associated with the closure of an industrial facility in that community.²⁴ To our knowledge, no study has examined the impact of improved ozone pollution for an extended period of time on asthma exacerbations or other markers of asthma morbidity. Also, the extent to which moderate concentrations of

Context Vehicle exhaust is a major source of ozone and other air pollutants. Although high ground-level ozone pollution is associated with transient increases in asthma morbidity, the impact of citywide transportation changes on air quality and childhood asthma has not been studied. The alternative transportation strategy implemented during the 1996 Summer Olympic Games in Atlanta, Ga, provided such an opportunity.

Objective To describe traffic changes in Atlanta, Ga, during the 1996 Summer Olympic Games and concomitant changes in air quality and childhood asthma events.

Design Ecological study comparing the 17 days of the Olympic Games (July 19–August 4, 1996) to a baseline period consisting of the 4 weeks before and 4 weeks after the Olympic Games.

Setting and Subjects Children aged 1 to 16 years who resided in the 5 central counties of metropolitan Atlanta and whose data were captured in 1 of 4 databases.

Main Outcome Measures Citywide acute care visits and hospitalizations for asthma (asthma events) and nonasthma events, concentrations of major air pollutants, meteorological variables, and traffic counts.

Results During the Olympic Games, the number of asthma acute care events decreased 41.4% (4.23 vs 2.47 daily events) in the Georgia Medicaid claims file, 46.1% (1.36 vs 0.76 daily events) in a health maintenance organization database, 11.1% (4.77 vs 4.24 daily events) in 2 pediatric emergency departments, and 19.1% (2.04 vs 1.65 daily hospitalizations) in the Georgia Hospital Discharge Database. The number of nonasthma acute care events in the 4 databases changed -3.1%, +1.3%, -2.1%, and +1.0%, respectively. In multivariate regression analysis, only the reduction in asthma events recorded in the Medicaid database was significant (relative risk, 0.48; 95% confidence interval, 0.34–0.66). Peak daily ozone concentrations decreased 27.9%, from 81.3 ppb during the baseline period to 58.6 ppb during the Olympic Games ($P < .001$). Peak weekday morning traffic counts dropped 22.5% ($P < .001$). Traffic counts were significantly correlated with that day's peak ozone concentration (average $r = 0.36$ for all 4 roads examined). Meteorological conditions during the Olympic Games did not differ substantially from the baseline period.

Conclusions Efforts to reduce downtown traffic congestion in Atlanta during the Olympic Games resulted in decreased traffic density, especially during the official evening period. This was associated with a prolonged reduction in ozone pollution and significantly lower rates of childhood asthma events. These data provide support for efforts to reduce air pollution and improve health via reductions in motor vehicle traffic.

JAMA. 2001;285:897-905

www.jama.com

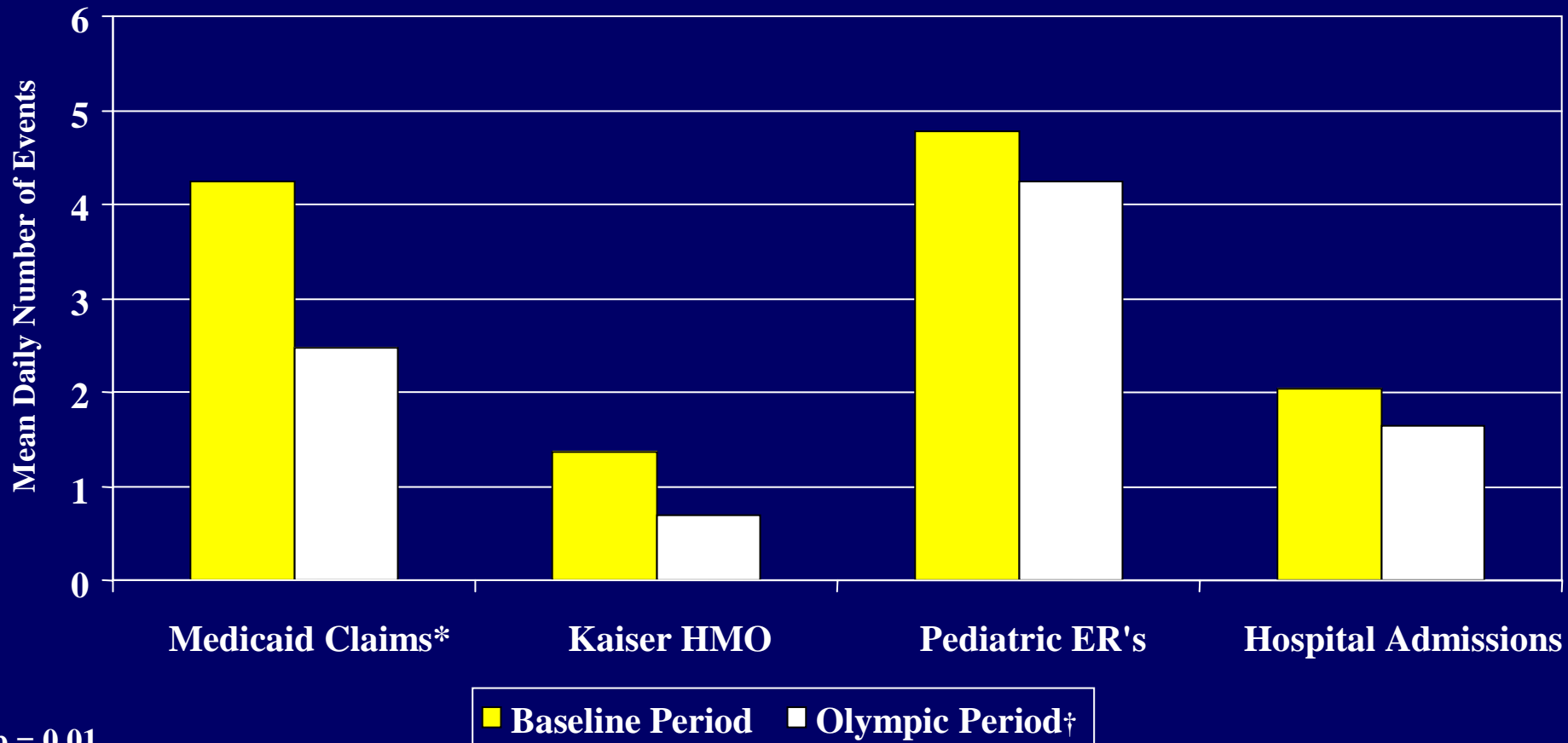
ozone (ie, daily peak of 30–100 ppb) during various exposure lengths affects asthma morbidity remains controversial.²⁴⁻²⁶

Author Affiliations are listed at the end of this article. Corresponding Author and Reprints: Michael S. Friedman, MD, Air Pollution and Respiratory Health Branch, National Center for Environmental Health, Centers for Disease Control and Prevention, Atlanta, Ga 30333 (e-mail: mtf@cdc.gov).



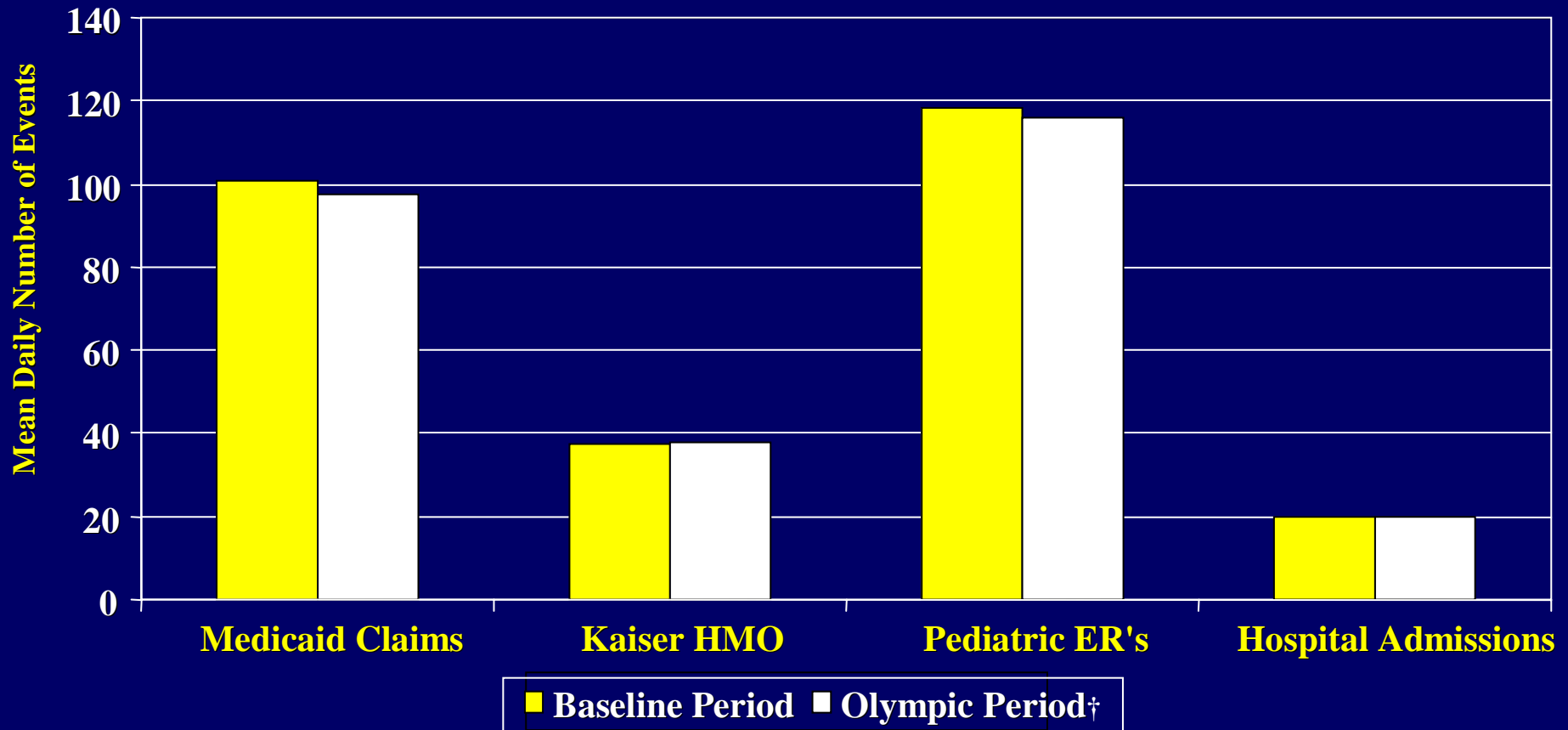
30% reduction in Driving
30 % Improvement in Air
Quality

Results: Acute Care Visits for Asthma 1-16 year old residents of Atlanta



Source: Friedman, et al, *JAMA*, 2001

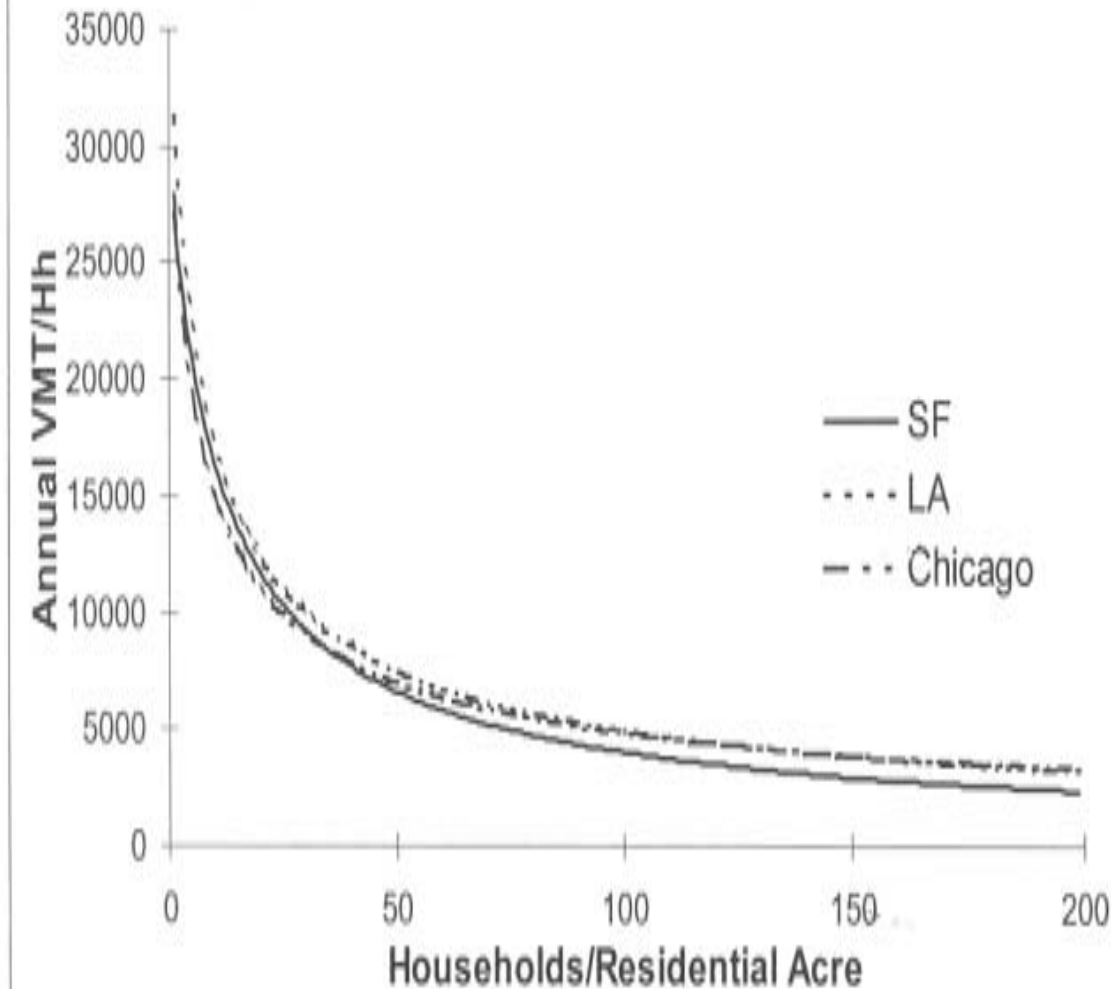
Results: Total Non-Asthma Related Acute Care Visits 1-16 year old residents of Atlanta



† July 19 –August 4, 1996

Source: Friedman, et al, *JAMA*, 2001

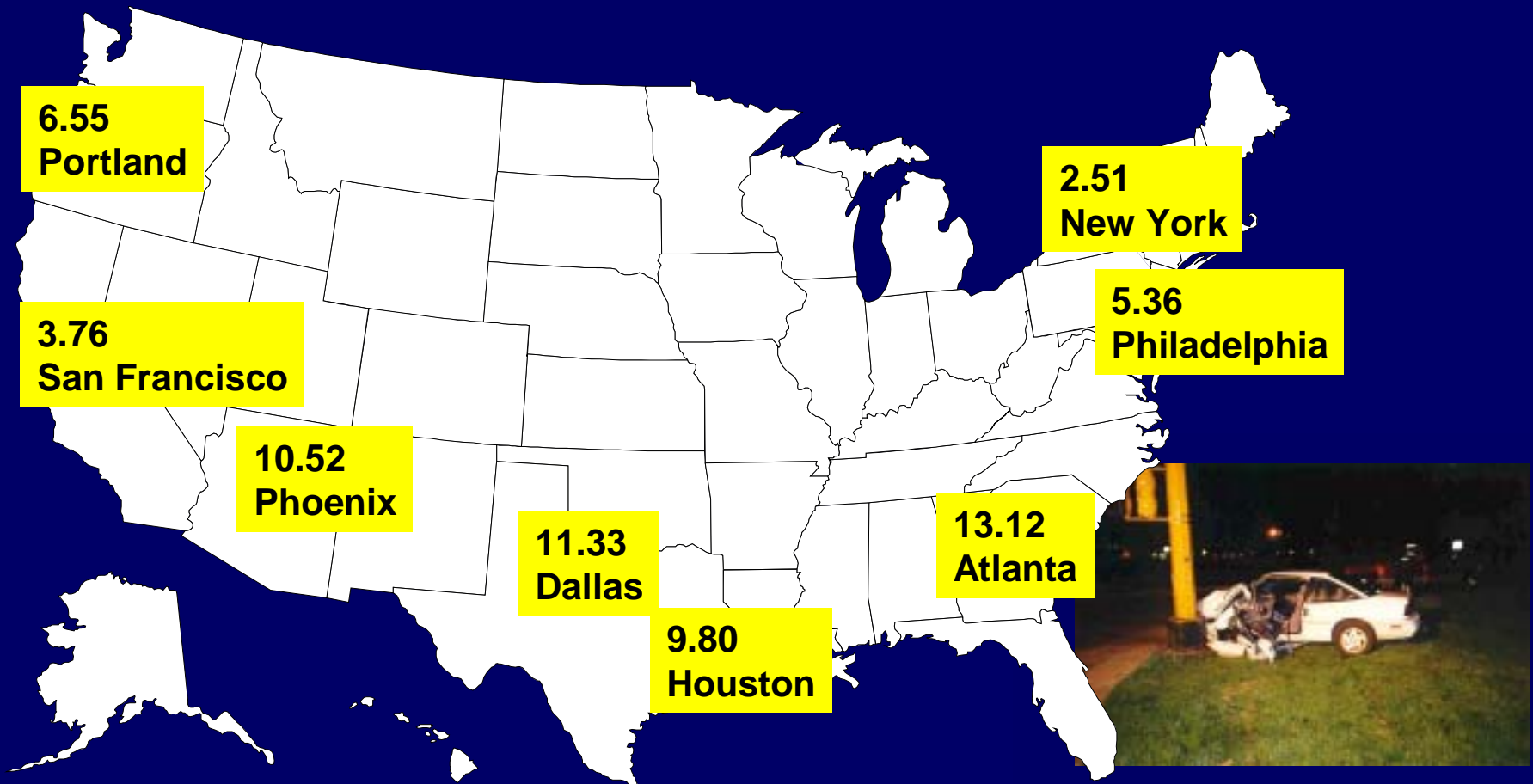
Driving vs Residential Density



Less
Density =
More
Driving

Automobile fatality rates by city, 1998

(excluding pedestrian fatalities; deaths/100,000/year)



Source: NHTSA

DOT to look at risks, benefits of tree-lined sidewalks

By CHRISTOPHER QUINN
cquinn@ajc.com

Bill Gadboldt would have never known what hit him.

The sound of a hubcap sweeping the curb gave him a scant second of warning.

He turned his head to check out the noise as he walked along Peachtree Street to the bushead MARTA station, and a Lexus ground by in a blur, the driver holding a cellphone against his ear, the car so close he could have touched it.

Had the car hopped the curb, "I had nowhere to go," he said.

Or nothing to hide behind. State Department of Transportation construction standards, which cities and counties rely on when building sidewalks and streets, prohibit trees, benches or utility poles within 8 feet of the curb.

The trees are a hazard to drivers, according to DOT standards.

That's ridiculous, said Sally Flocks.



EAST SIDE

On Peachtree Road at Peachtree Road, a contrast exists between the east side of Peachtree Road and the west side. DOT standards say trees cannot be planted within 8 feet of a curb without a special dispensation.

Flocks, the Mart and evangelist president of Atlanta's Pedestrians Advocating Drivers on Safety, and Adam Oltin, a local developer, want the DOT to reconsider its standards.

DOT officials say they are

reviewing them, but big changes are unlikely.

To a traffic engineer's way of thinking, sidewalks are auto recovery zones, roadside areas where drivers have space to correct course if



WEST SIDE

Deanna Kapike (from left), Carolyn Swain and Ariana Huggatt walk along the tree-lined west side of Peachtree Road. A developer and pedestrian group are pressing the DOT to allow trees between sidewalks and roads.

Photos by Chris Quinn / Staff

they've veered off. Trees would ensure the driver came to an abrupt end before getting the car back on the road.

Atlanta's reputation as a dangerous place for walkers is well known,

from the death of writer Margaret Mitchell, who was run over on Peachtree Street in 1948, to the city's consistently low ranking in an

► Please see **SIDEWALK, B5**

To a traffic engineer's way of thinking, sidewalks are auto recovery zones, roadside areas where drivers have space to correct course if they've veered off. Trees would ensure the driver came to an abrupt end before getting the car back on the road.

In 2001, drivers killed 64 pedestrians in Atlanta. The city dropped from second to 12th-most-dangerous city for walking. Statewide, drivers killed another 82 people. The 2002 survey is not complete.

Sidewalk standards under fire

► Continued from B1

national survey. The Surface Transportation Policy Project, an association of planners and transportation workers, ranked Atlanta the second-most-dangerous city for walkers in 2000. Cars killed 68 pedestrians in Atlanta that year, and another 69 statewide.

In 2001, drivers killed 64 pedestrians in Atlanta. The city dropped from second to 12th-most-dangerous city for walking. Statewide, drivers killed another 82 people. The 2002 survey is not complete.

David Studstill, director of operations for the DOT, said the sidewalk construction standard tries to balance the odds to produce the lowest number of serious injuries for drivers and walkers.

A driver would be seriously hurt in a collision with a tree, which remains in place 24 hours a day. On the other hand, pedestrians are on most sidewalks only momentarily. A car veering into the "recovery zone" would be likely to hit nothing.

So prohibiting trees should

result in fewer overall injuries, he said. "It's kind of like solving the question, 'Which is the lesser of two evils? We want to protect the pedestrian, but we want to protect the drivers as well,'" Studstill said.

Flocks sees it differently: "[The DOT] would rather have a pedestrian killed by a car than have a car fender dented," she said.

The DOT is re-examining its standards at a time when cities and communities are trying to revitalize themselves by making streets lively places where pedestrians feel safe.

Metro cities will spend up to \$280 million in federal dollars in the next 10 years as part of the Atlanta Regional Commission's Livable Centers Initiative. Pedestrian-friendly streets are an important part of that.

Despite the push, getting anything other than a bare strip of concrete beside a road remains difficult.

Oltin, a developer with Devin Properties in Alpharetta, has tried unsuccessfully to get permission to put trees between sidewalks and streets.

He wanted trees between the road and sidewalk at the Deerfield development in Alpharetta in 2001. The city made him put the sidewalk within 2 feet of the curb on Windward Parkway, with no trees between the sidewalk and street.

Situations like that led him to write Georgia Regional Transportation Authority board Chairman Walter "Sonny" Deriso recently to ask for help in changing the standards.

Oltin says pedestrians don't feel safe on sidewalks that are so close to the curb. "You go out there on a 45 mph street, and people are driving 50. You [walk] around a curve, and it's scary."

Studstill said engineers are reviewing the standards and are considering allowing trees, benches and light poles next to the road on streets with speed limits of 35 mph or less.

► ON THE WEB

For a clearinghouse on pedestrian issues and statistics:
www.walkinginfo.org

Read the national pedestrian safety report: www.transact.org/

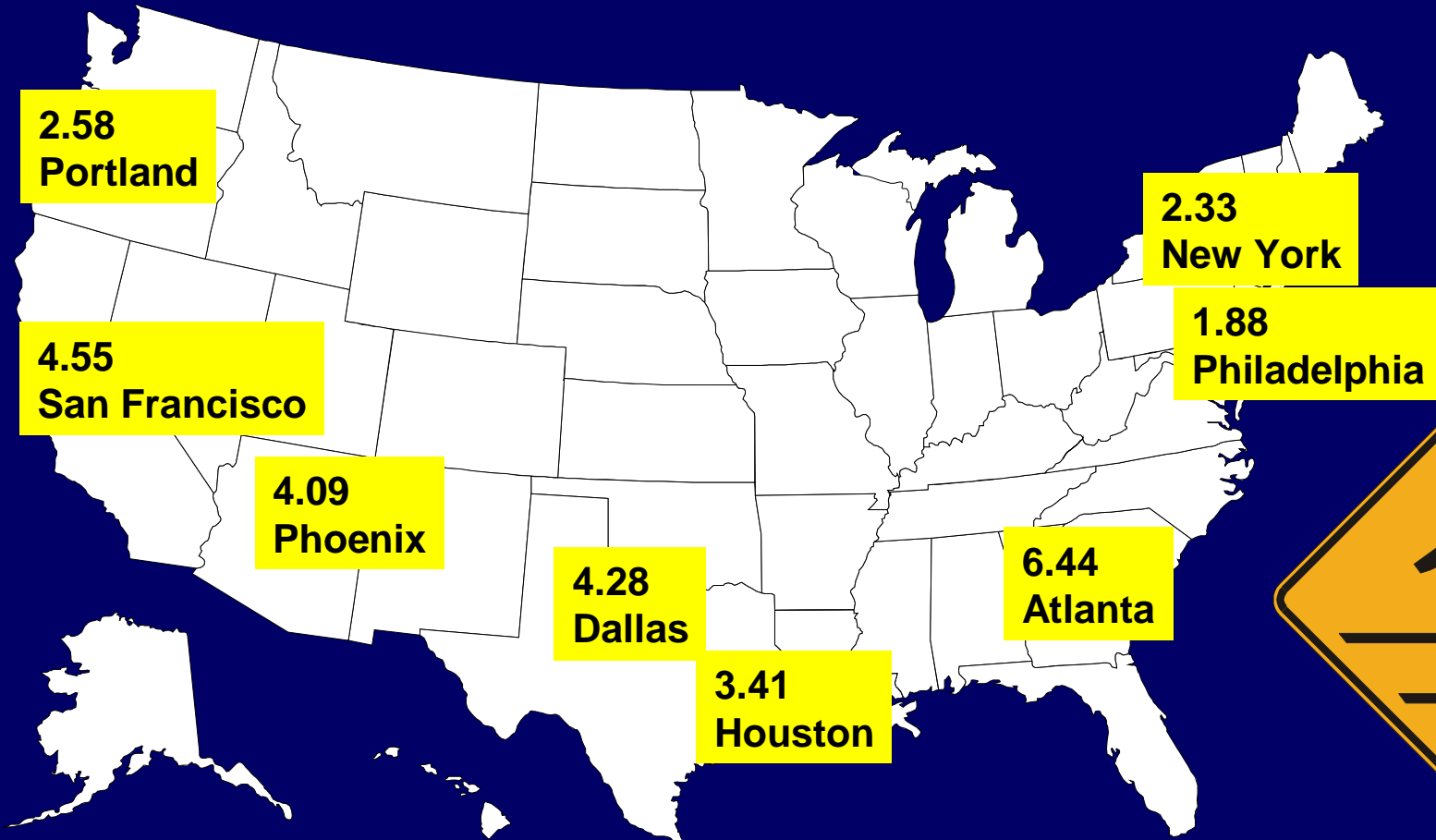
Children's Contact with Nature

- School age children with ADHD who had higher contact with nature showed better concentration, task completion, and following of directions.

*Coping with ADD: The Surprising Connection to Green Play Settings”
Environment and Behavior, 33 (1), 54-77 AF Taylor, FE Kuo, WC
Sullivan, 2001*

Pedestrian fatality rates by city, 1998

(deaths/100,000/year)



Source: NHTSA



Overall: Compared to 1969

Americans drive:

- 88% farther to shop
- 137% farther for errands

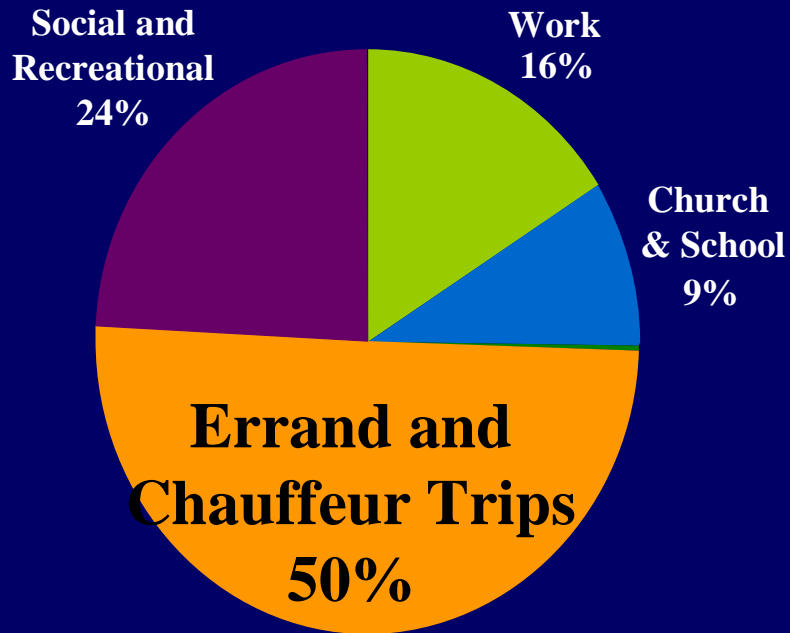


Mega-Mileage Moms

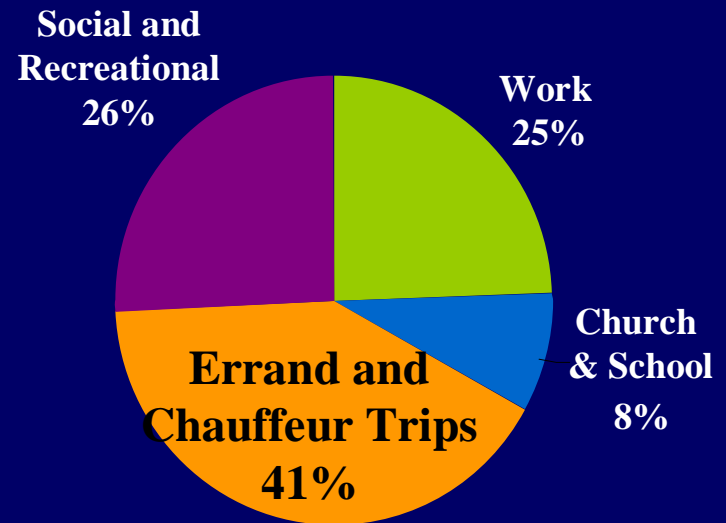
- Family “chauffeur”
- Average minutes per day spent in car:
 - Women overall: 64 minutes
 - Single mothers: 75 minutes

Women and Men's Trip Making by Purpose, 1995

Women



Men

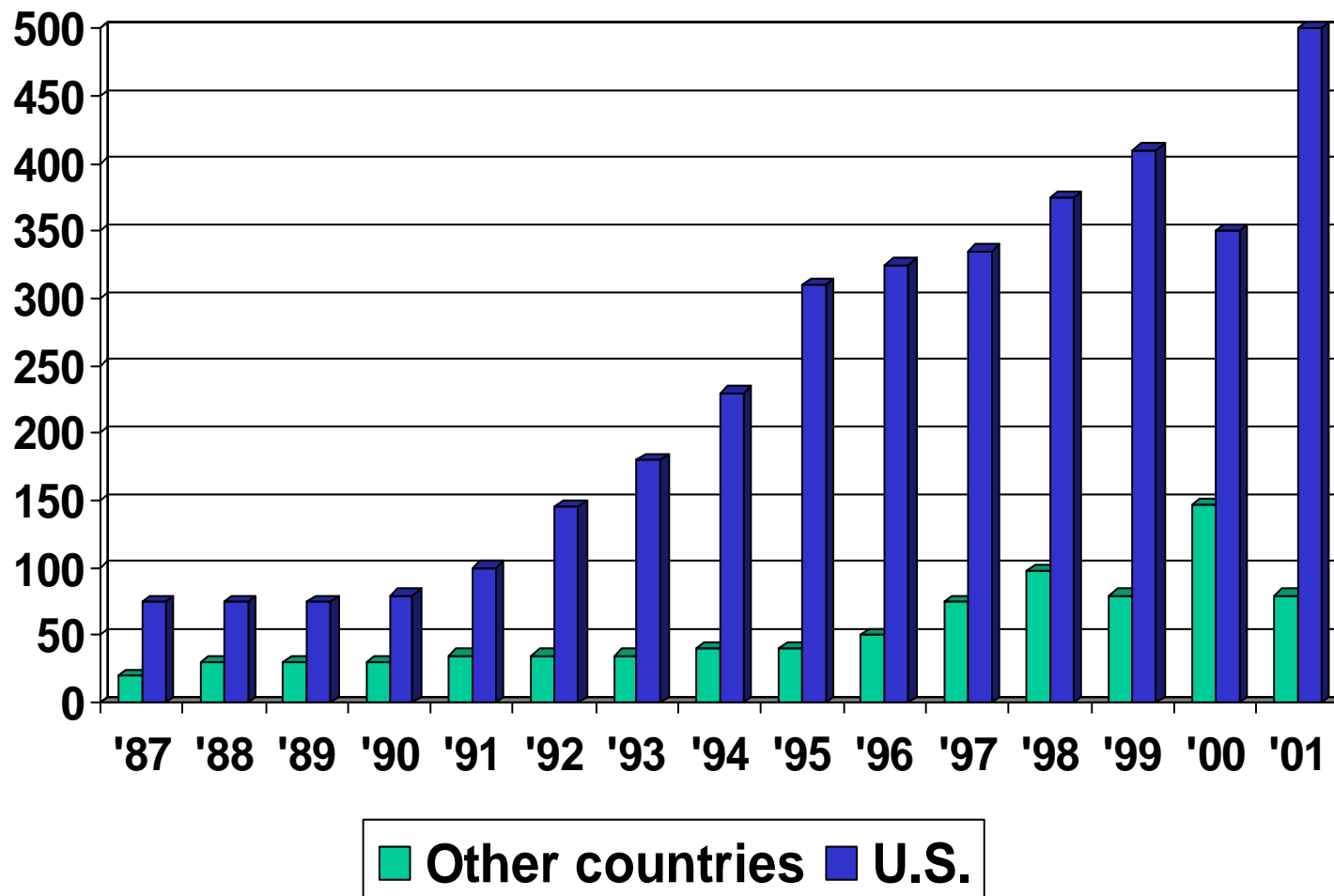


Super-Sized Schools



Credit: Constance E. Beaumont, NTHP

Methylphenidate (Ritalin) Consumption, United States and Elsewhere: 1987 - 2001

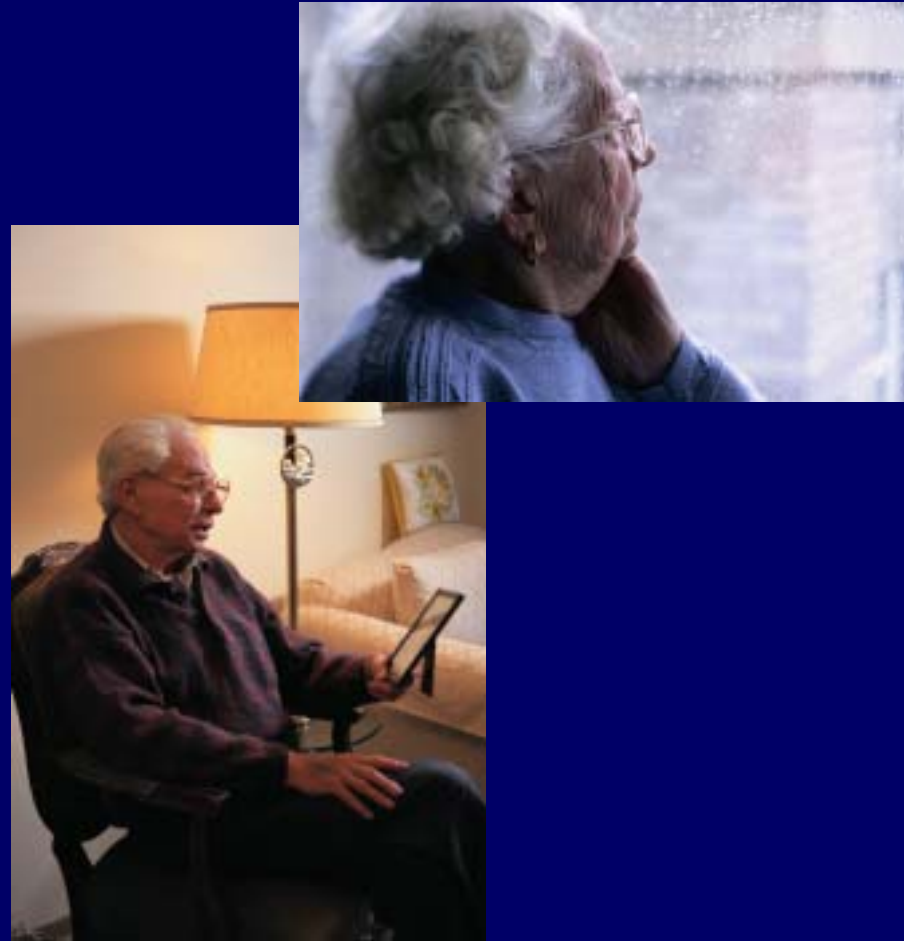


Source: Science, Vol. 289, 4 August 2000, p. 721 and International Narcotics Control Board, 2002

Depressive Disorders

19 million American adults

- **Leading cause of disability in the U.S. and worldwide**
- **Treatment:**
 - **Medication**

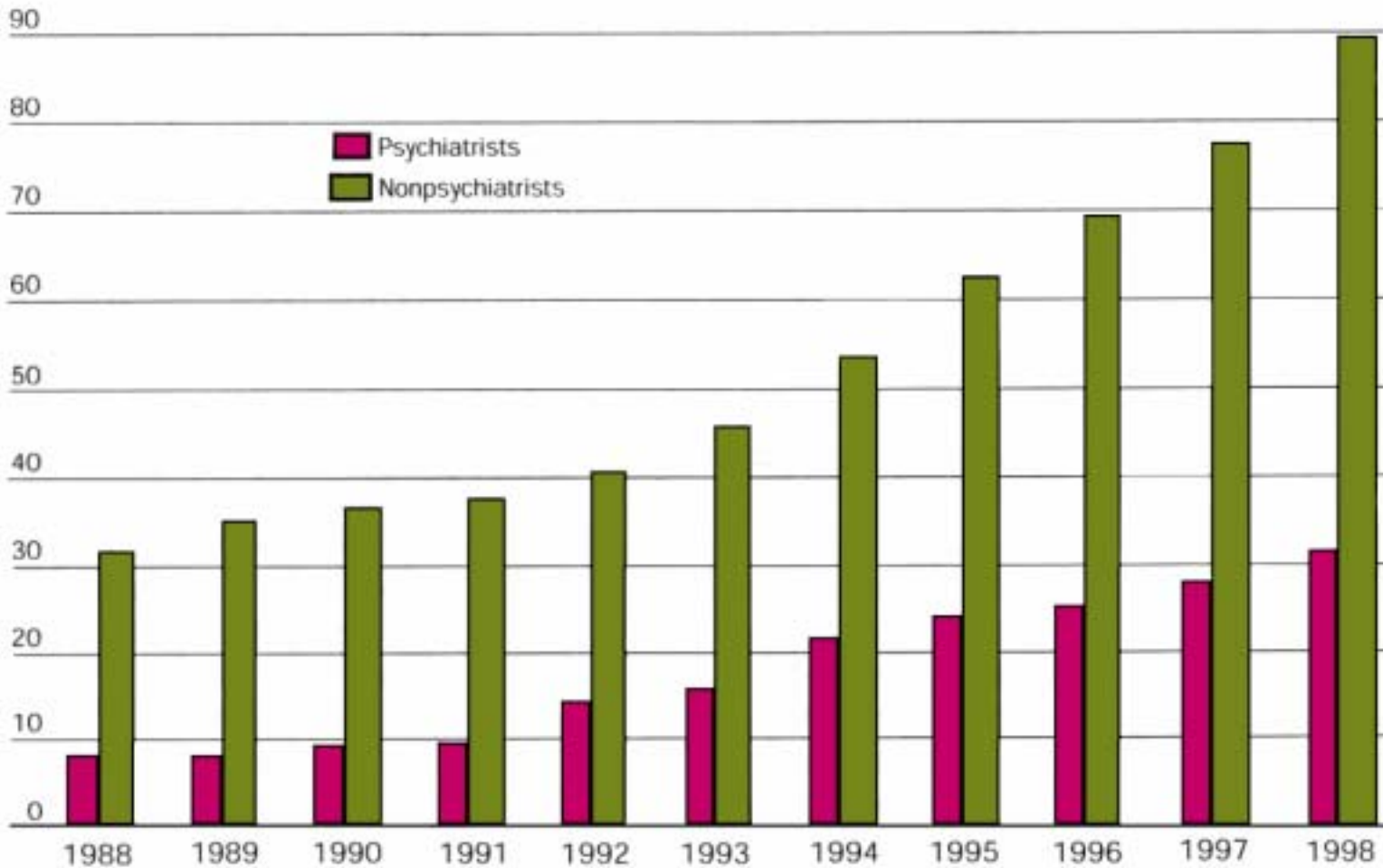


Source: National Institute of Mental Health (NIMH), 2001

Antidepressant Rx in US

Antidepressant Prescriptions By Physician Specialty, 1988-1998

Millions of prescriptions

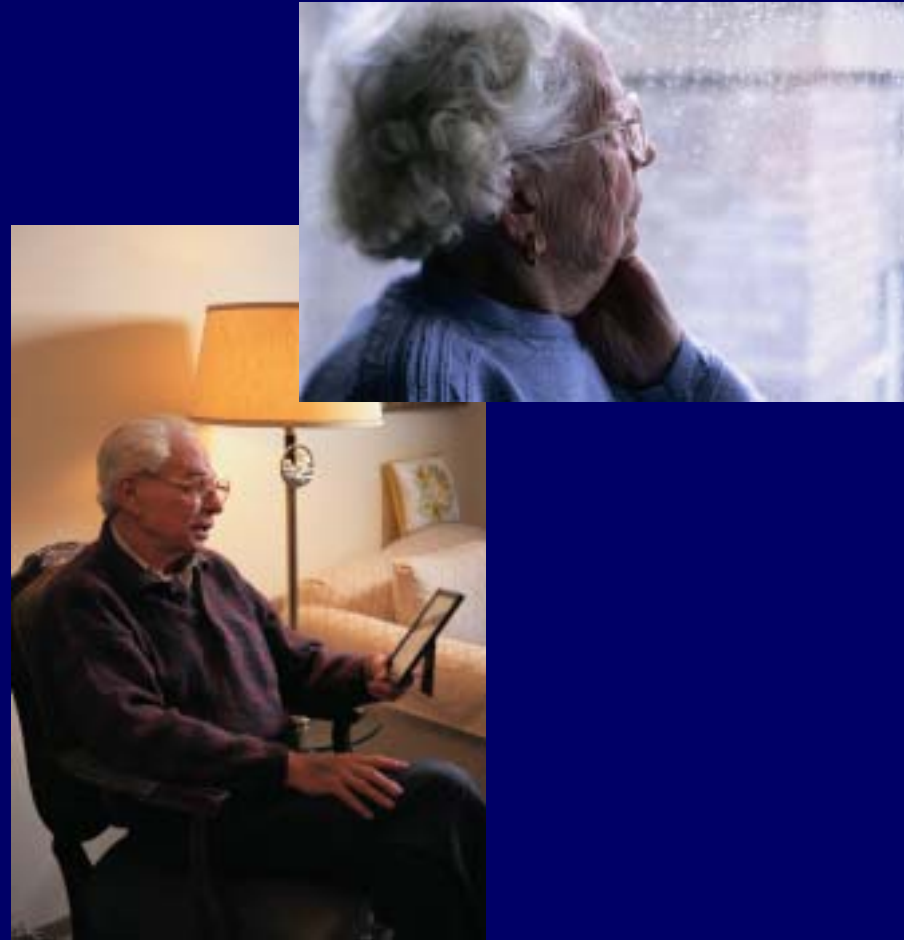


SOURCE: IMS Health, Inc.
HEALTH AFFAIRS - Volume 19, Number 4

Depressive Disorders

19 million American adults

- Leading cause of disability in the U.S. and worldwide
- Treatment:
 - Medication
 - Social Contact, including therapy



Source: National Institute of Mental Health (NIMH), 2001

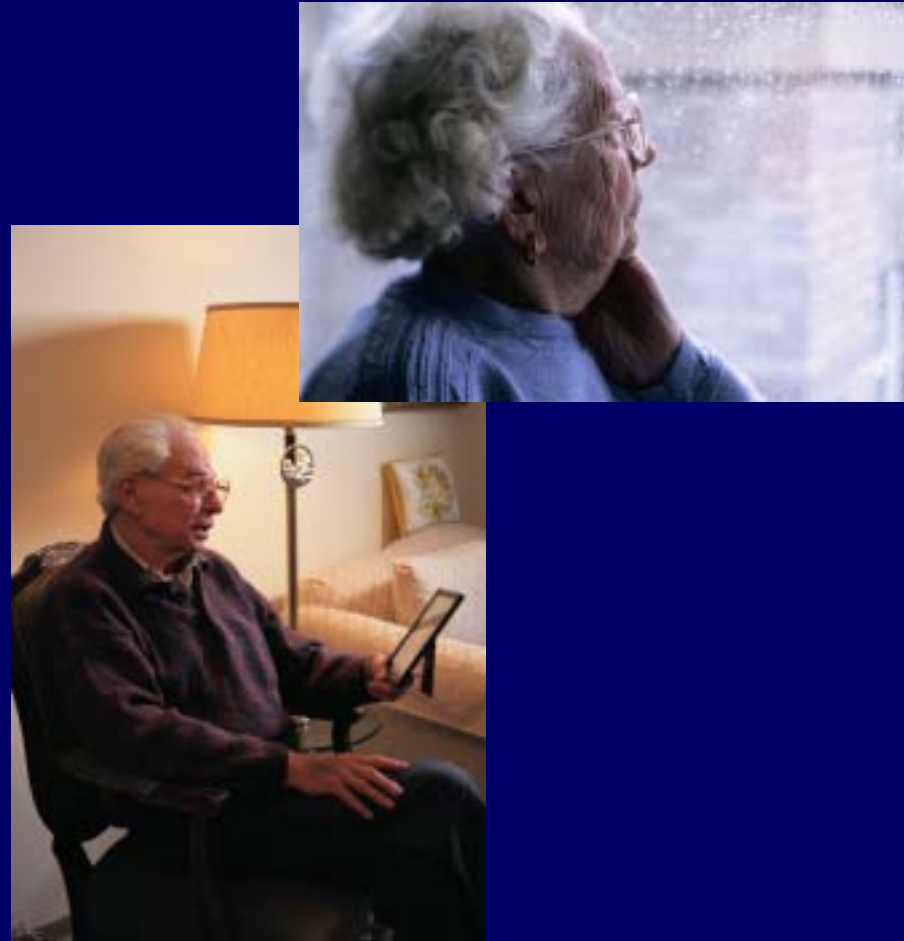


**Elderly
people**

Depressive Disorders

19 million American adults

- **Leading cause of disability in the U.S. and worldwide**
- **Treatment:**
 - **Medication**
 - **Social Contact, including therapy**
 - **And.....**



Source: National Institute of Mental Health (NIMH), 2001

One person walking
is exercise.



Millions of people walking
is a step toward keeping
healthcare affordable.

The illness and chronic disease resulting from inactive lifestyles cost as much as \$77 billion a year to treat. That's why Blue Cross and Blue Shield Plans across the nation are launching **WalkingWorksSM**, an unprecedented effort to work with employers to help Americans add physical activity to their daily routines. It's one of the many ways we're doing our part to control rising healthcare costs. For more information, visit our web site at www.bcbs.com.

Healthcare. Affordable. Now.



**BlueCross BlueShield
Association**

An Association of Independent
Blue Cross and Blue Shield Plans

Exercise

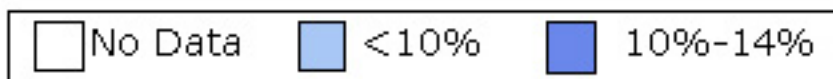
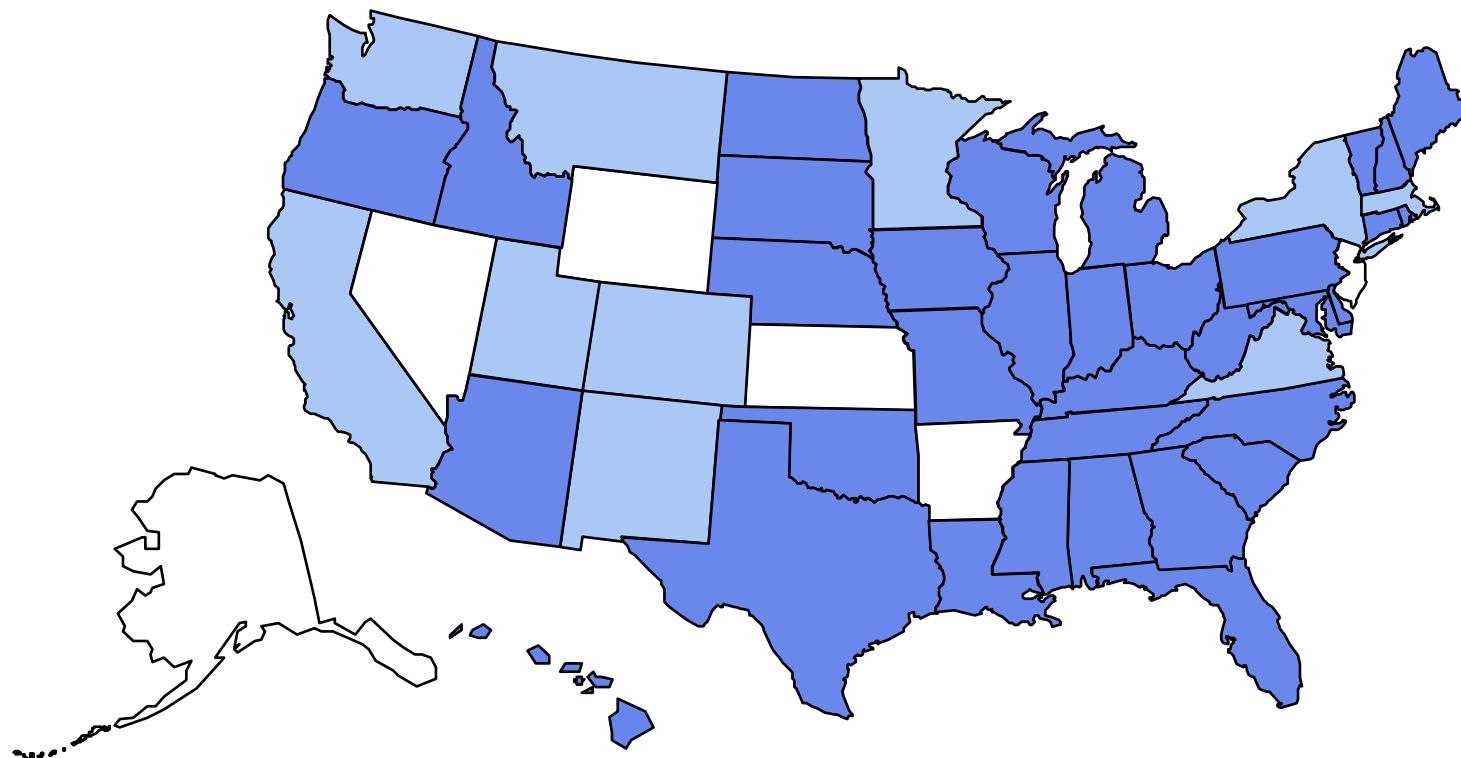
From the
OP-ED Page
of the New
York Times



Obesity Trends* Among U.S. Adults

BRFSS, 1990

(*BMI ≥ 30 , or ~ 30 lbs overweight for 5'4" woman)

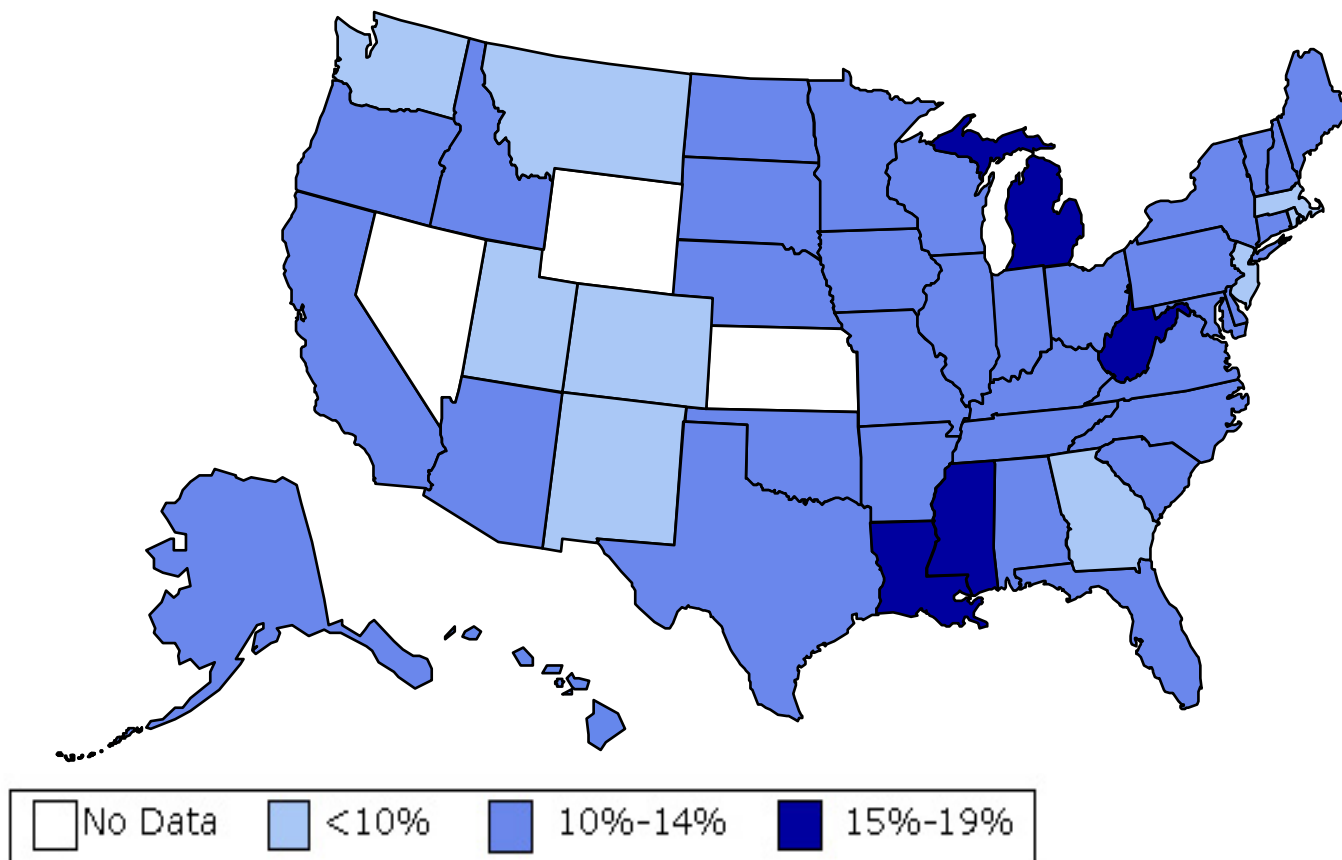


Source: Mokdad A H, et al. *J Am Med Assoc* 1999;282:16, 2001;286:10.

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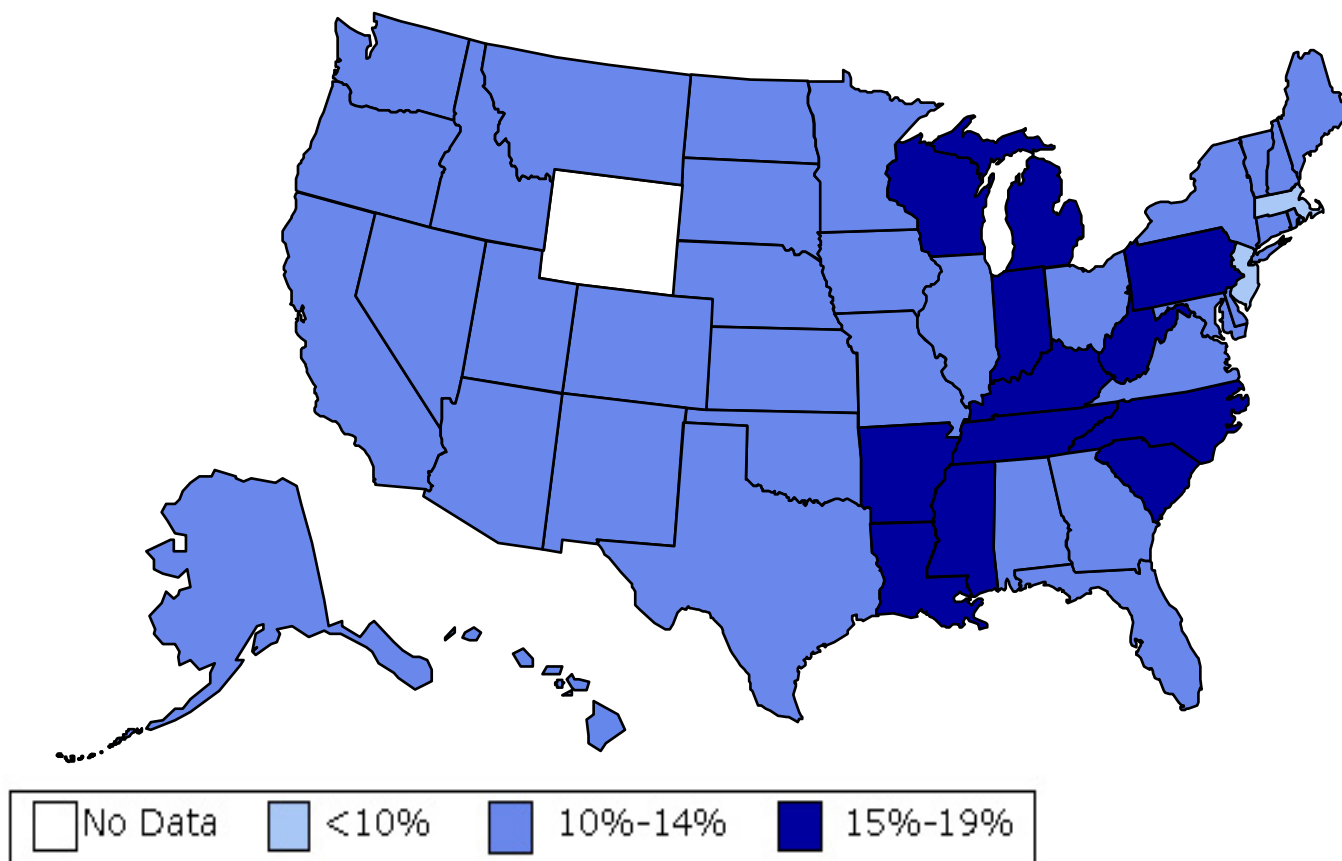


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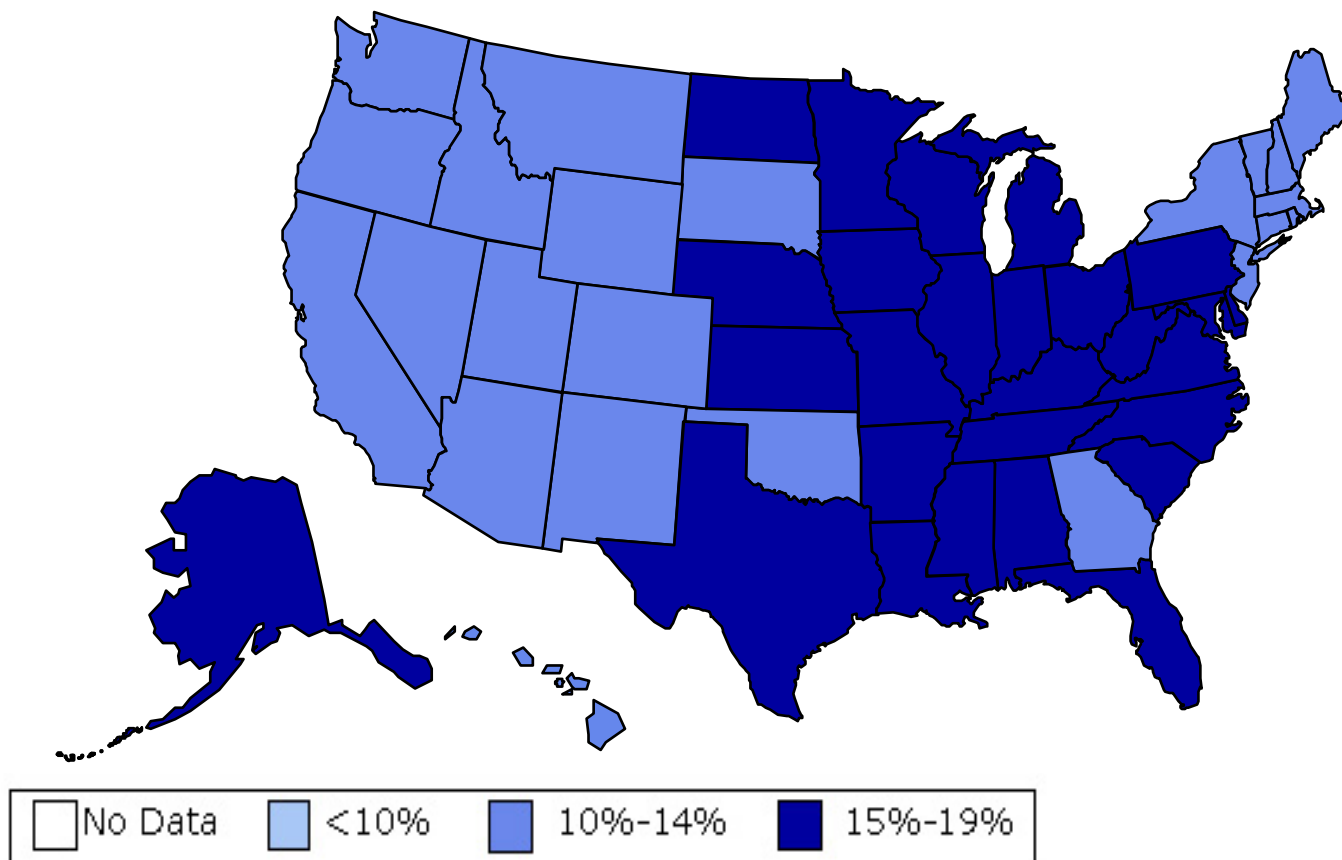


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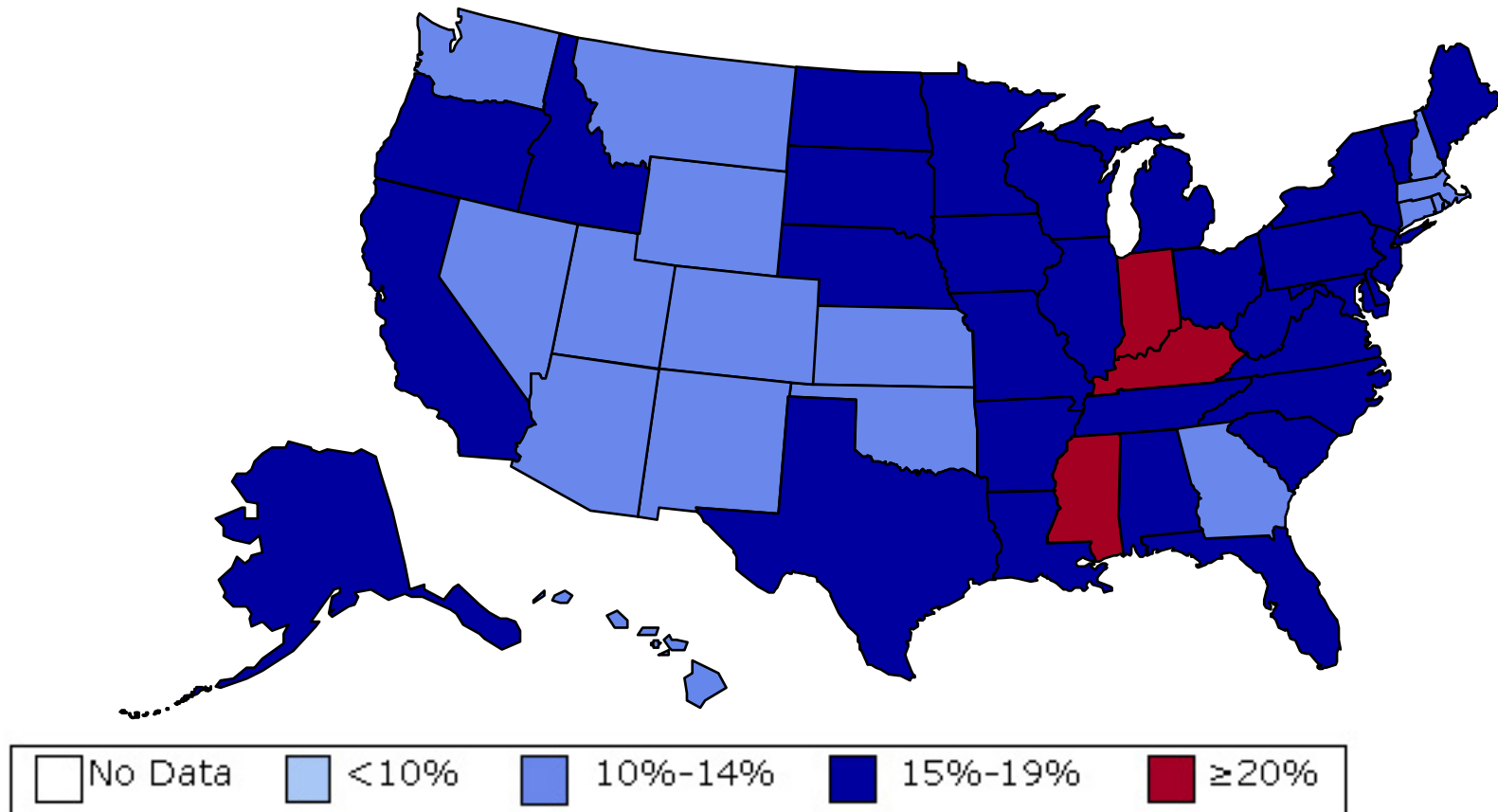


Source: Mokdad A H, et al. *J Am Med Assoc* 1999;282:16, 2001;286:10.

Obesity Trends* Among U.S. Adults

BRFSS, 1997

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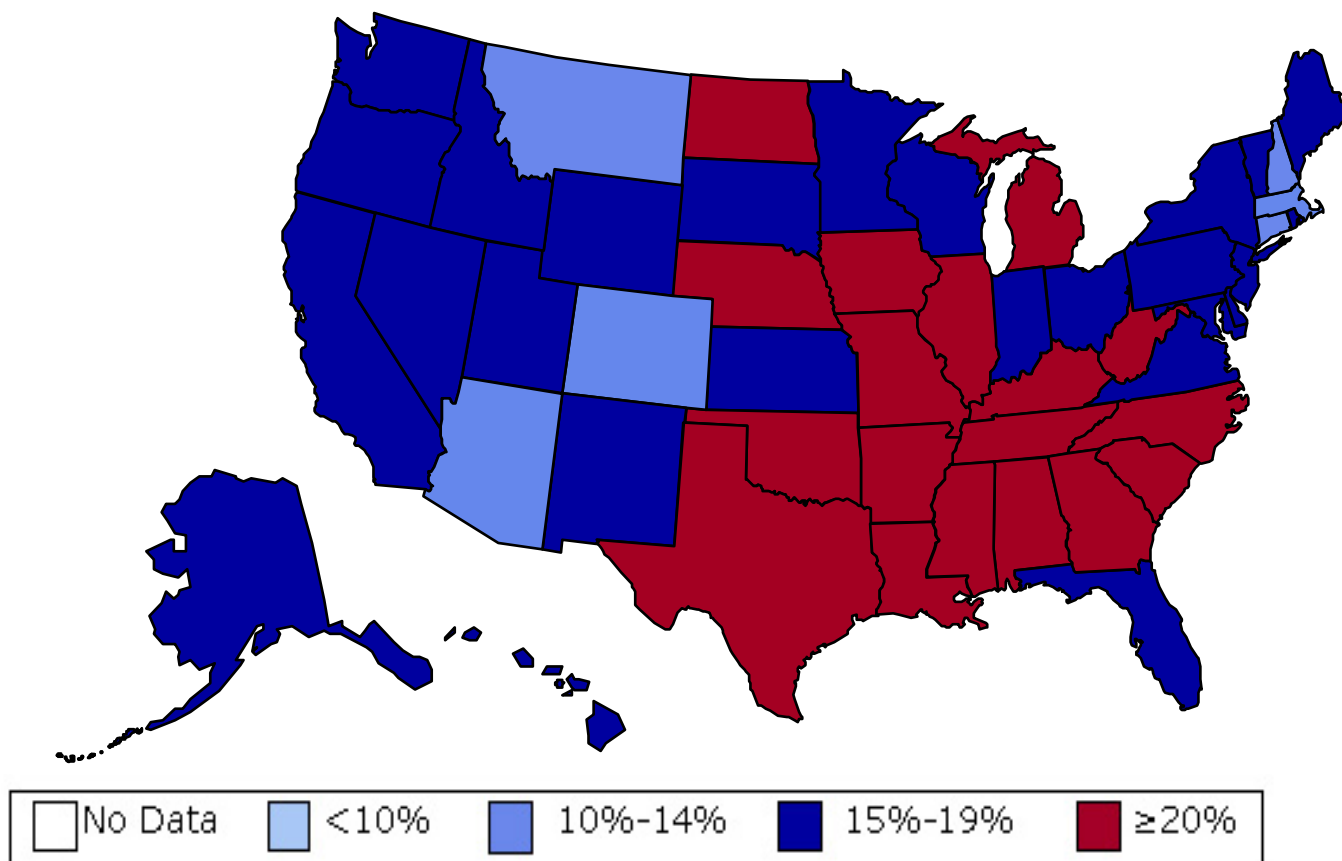


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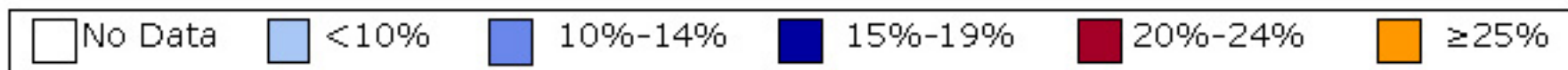
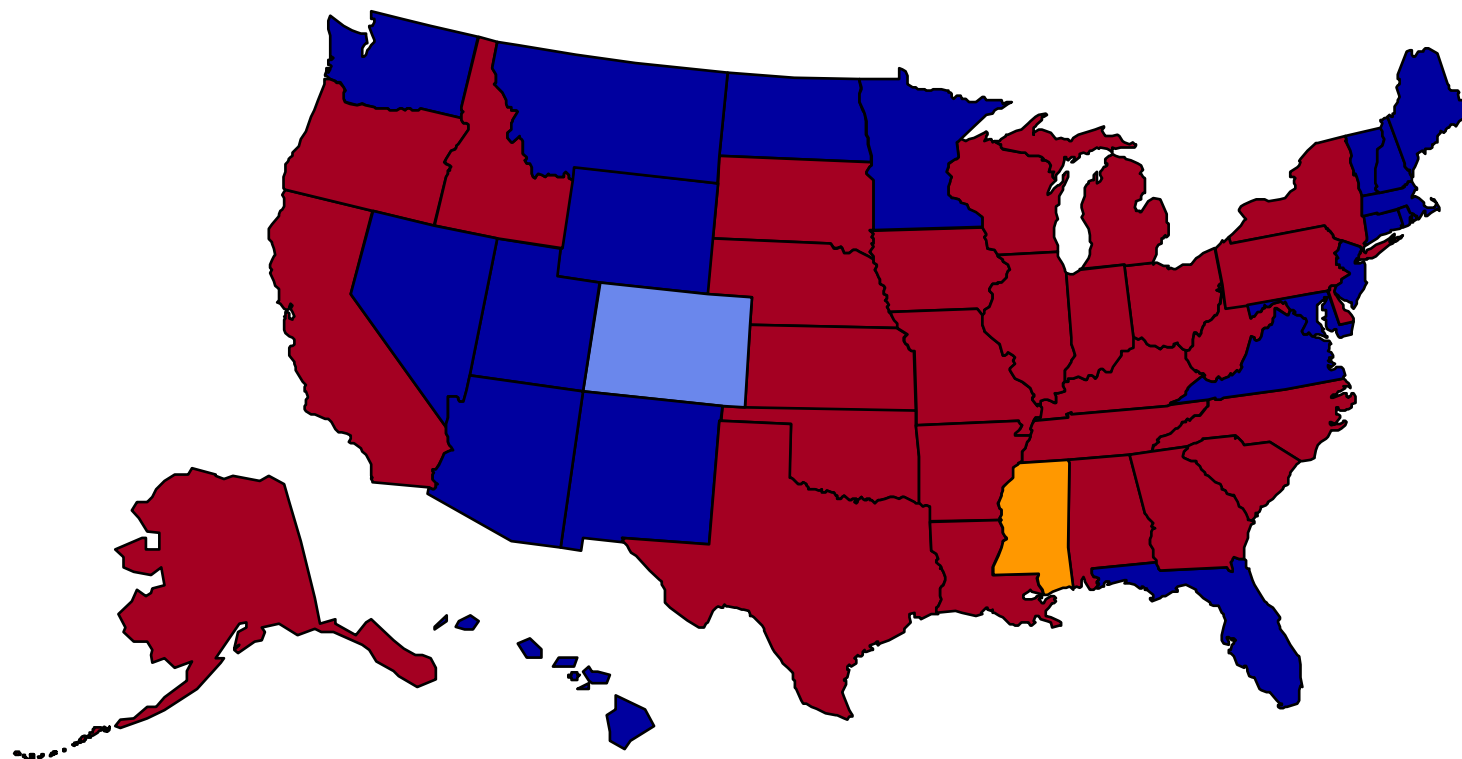


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BRFSS, 2001

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Source: Mokdad A H, et al. *J Am Med Assoc* 1999;282:16, 2001;286:10.

Prevalence (%) of overweight among children and adolescents ages 6-19 years

<i>Age (years) 1</i>	<i>1963- 65 1966- 70²</i>	<i>1971- 74</i>	<i>1976- 80</i>	<i>1988- 94</i>	<i>1999- 2000</i>
6-11	4	4	7	11	15
12-19	5	6	5	11	15

Source: 1999-2000 NHANES

Average 11 year old boy today is 11 pounds heavier than in 1973



International Agency for
Research on Cancer (IARC)

Centre International de
Recherche sur le Cancer (CIRC)

“...up to one third of cancers of the colon, breast and kidney can be attributed to overweight and insufficient physical activity. Thus, adiposity and inactivity represent the *most important avoidable causes* for these cancers.”

Overweight And Lack Of Exercise Linked To Increased Cancer Risk –

A Growing Problem . International Agency for Research on Cancer, 20 February 2002



International Agency for
Research on Cancer (IARC)

Centre International de
Recherche sur le Cancer (CIRC)

"Regular physical activity reduces the risk of breast and colon cancer, and possibly that of endometrial and prostate cancer."



Overweight And Lack Of Exercise Linked To Increased Cancer Risk –

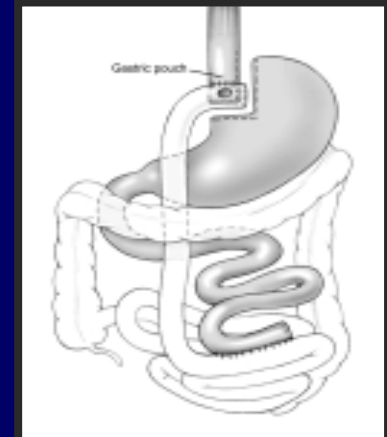
A Growing Problem . International Agency for Research on Cancer, 20 February 2002

GI Surgery for Severe Obesity

Risk and Complications:

- 10-20% require follow-up surgery
- Abdominal hernia
- Break down of staple line
- Gallstones
- 30% develop nutritional deficiency

Cost: \$15,000 to \$30,000



Source: NIDDK

Highest Increase Rate of all Pediatric Surgeries

Unintended Costs of Epidemic of Obesity

- Mean weight gain of Americans in 1990s:
10 pounds
- Airline distance flown in 2000 in US:
515 billion passenger-miles
- Weight transported 1 mile by 1 gallon of fuel:
7.3 tons (passengers or cargo)
- Jet fuel to transport added weight in 2000:
350 million gallons
- Cost of extra fuel: \$275 million
- CO₂ emissions from extra fuel:
3.8 million tons

Data sources: NCHS; US Dept. of
Transportation



EDITORIAL

The Ironic Politics of Obesity

Here is a great irony of 21st-century global public health: While many hundreds of millions of people lack adequate food as a result of economic inequities, political corruption, or warfare, many hundreds of millions more are overweight to the point of increased risk for diet-related chronic diseases. Obesity is a worldwide phenomenon, affecting children as well as adults and forcing all but the poorest countries to divert scarce resources away from food security to take care of people with preventable heart disease and diabetes.

To reverse the obesity epidemic, we must address fundamental causes. Overweight comes from consuming more food energy than is expended in activity. The cause of this imbalance also is ironic: improved prosperity. People use extra income to eat more and be less active. Market economies encourage this. They turn people with expendable income into consumers of aggressively marketed foods that are high in energy but low in nutritional value, and of cars, television sets, and computers that promote sedentary behavior. Gaining weight is good for business. Food is particularly big business because everyone eats.

Moreover, food is so overproduced that many countries, especially the rich ones, have far more than they need—another irony. In the United States, to take an extreme example, most adults—of all ages, incomes, educational levels, and census categories—are overweight. The U.S. food supply provides 3800 kilocalories per person per day, nearly twice as much as required by many adults. Overabundant food forces companies to compete for sales through advertising, health claims, new products, larger portions, and campaigns directed toward children. Food marketing promotes weight gain. Indeed, it is difficult to think of any major industry that might benefit if people ate less food; certainly not the agriculture, food product, grocery, restaurant, diet, or drug industries. All flourish when people eat more, and all employ armies of lobbyists to discourage governments from doing anything to inhibit overeating.



The U.S. food supply provides 3800 kilocalories per person per day, nearly twice as much as required by many adults.

Food marketing promotes weight gain. Indeed, it is difficult to think of any major industry that might benefit if people ate less food.

Science
Magazine

Marion
Nestle PhD

Author:
*Food
Politics*

DIABETES

It Strikes
16 Million
Americans

Are You
at Risk?

Computer drawing of a human insulin molecule

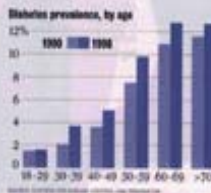
SOCIETY

An American Epidemic

Diabetes

The silent killer: Scientific research shows a 'persistent explosion' of cases—especially among those in their prime
BY JERRY ADLER AND CLAUDIA KALB

SOMETHING TERRIBLE WAS HAPPENING TO YOLANDA BENITEZ's eyes. They were being poisoned; the fragile capillaries of the retina attacked from within and were leaking blood. The first symptoms were red lines, appearing vertically across her field of vision; the lines multiplied and merged into a haze that shut out light entirely. "Her blood vessels inside her eye were popping," says her daughter, Jannette Roman, a Chicago college student. Benitez, who was in her late 40s when the problem began four years ago, was a cleaning woman, but she's had to stop working. After five surgeries, she has regained vision in one eye, but the other is completely useless. A few weeks ago, awakening one night in a hotel bedroom, she walked into a door, setting off a paroxysm of pain and nausea that hasn't let up yet. And what caused this catastrophe was nothing as exotic as pesticides or emerging viruses. What was poisoning Benitez was sugar.



Heredity

Genes help determine whether you'll get diabetes. In many families, multiple generations are struck. But heredity is not destiny—especially if you eat well and exercise.

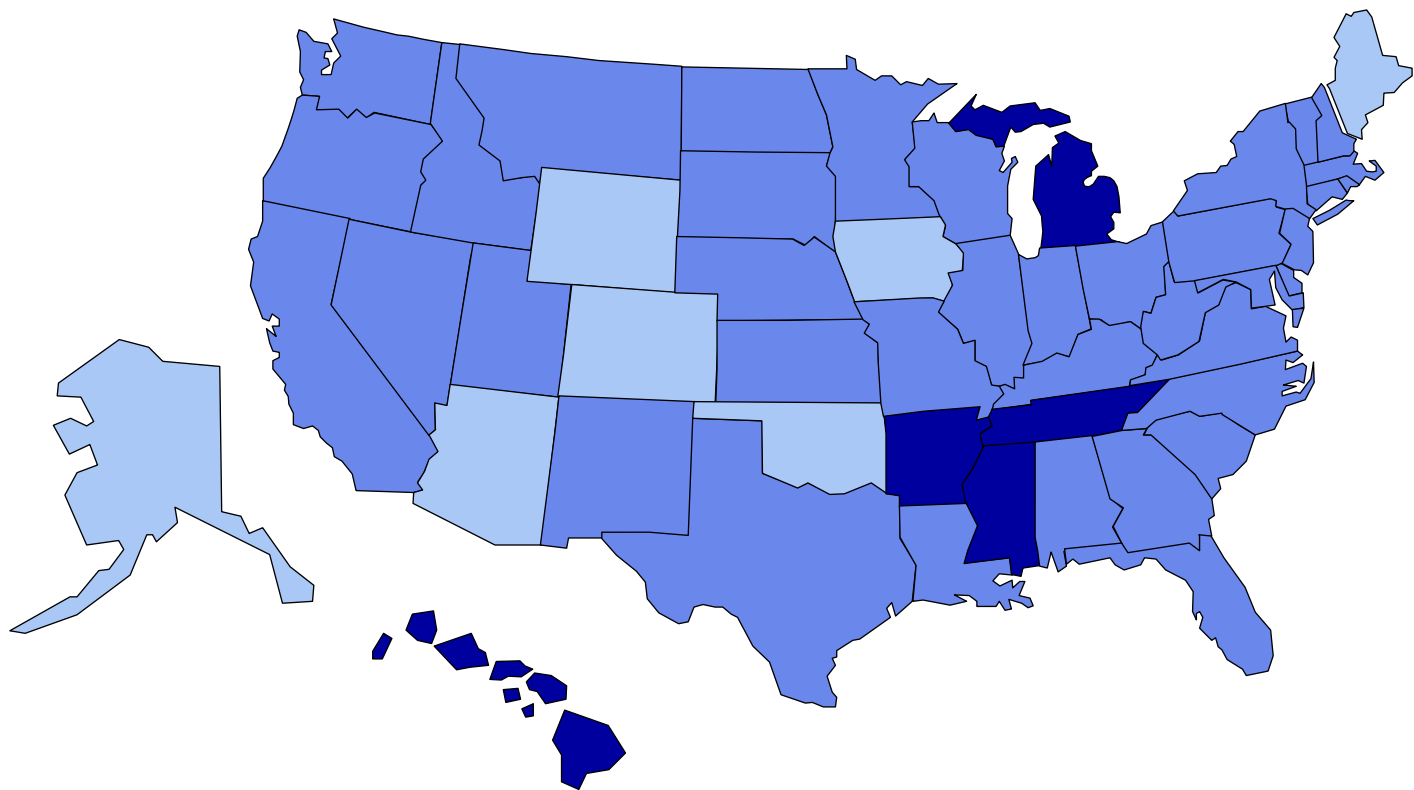
FAMILY PICTURE: Benitez (left) and Roman. Benitez's mother and two brothers died from complications of the disease.

Relative Risk of Type 2 Diabetes among 84,941 Women in the Nurses' Health Study, 1980 to 1996

BMI	RR	<i>BMI: Body Mass Index</i>
<23.0	1.0	
23.0-24.9	2.7	<i>RR: Relative Risk</i>
25.0-29.9	7.6	
30.0-34.9	20.1	
≥35.0	39	

Willett et al: The New England Journal of Medicine, September 13, 2001

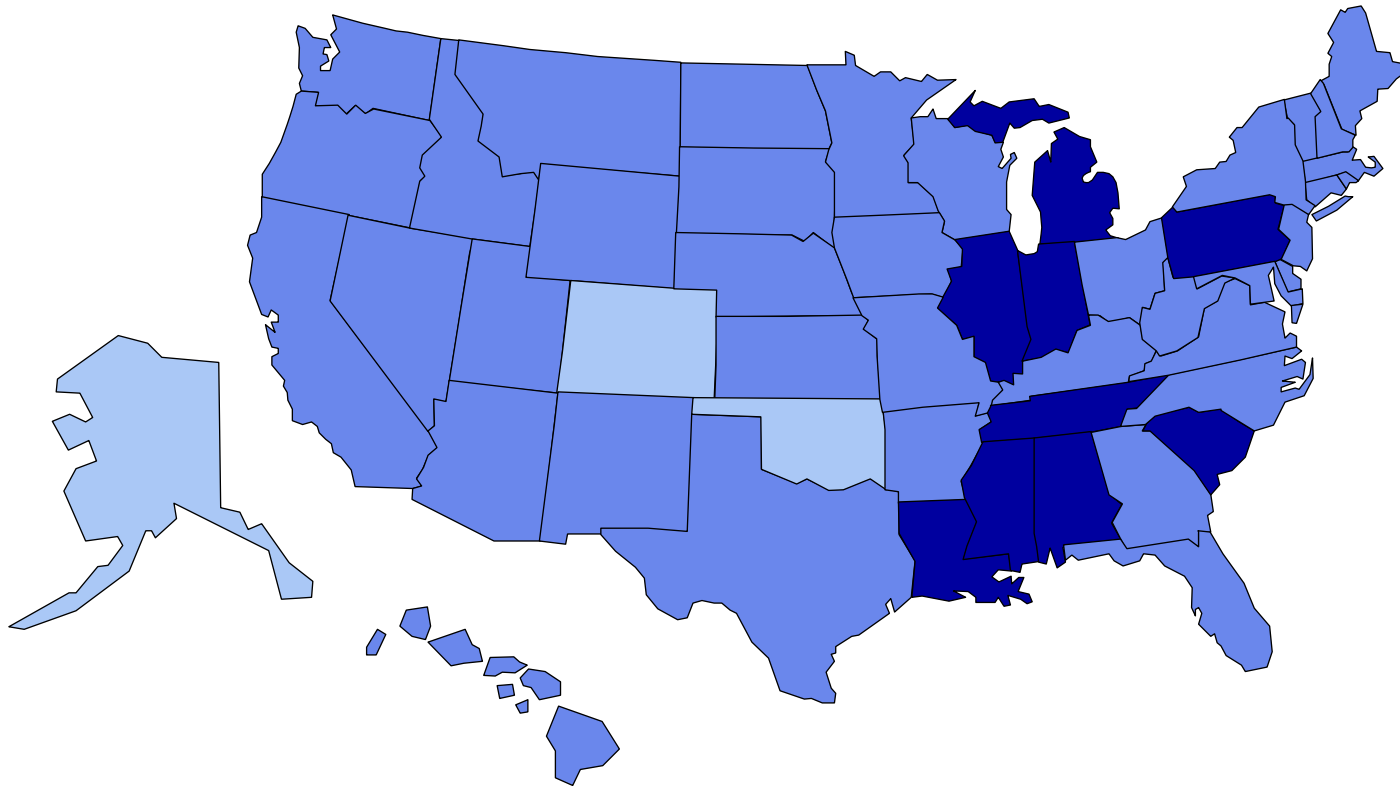
Diabetes and Gestational Diabetes Trends Among Adults in the U.S., BRFSS 1993-94



No Data <4% 4%-6% 6%-8% 8%-10% >10%

Mokdad AH, Ford ES, Bowman BA, et al. Prevalence of obesity, diabetes, and other obesity-related health risk factors, 2001. JAMA 2003 Jan 1;289(1).

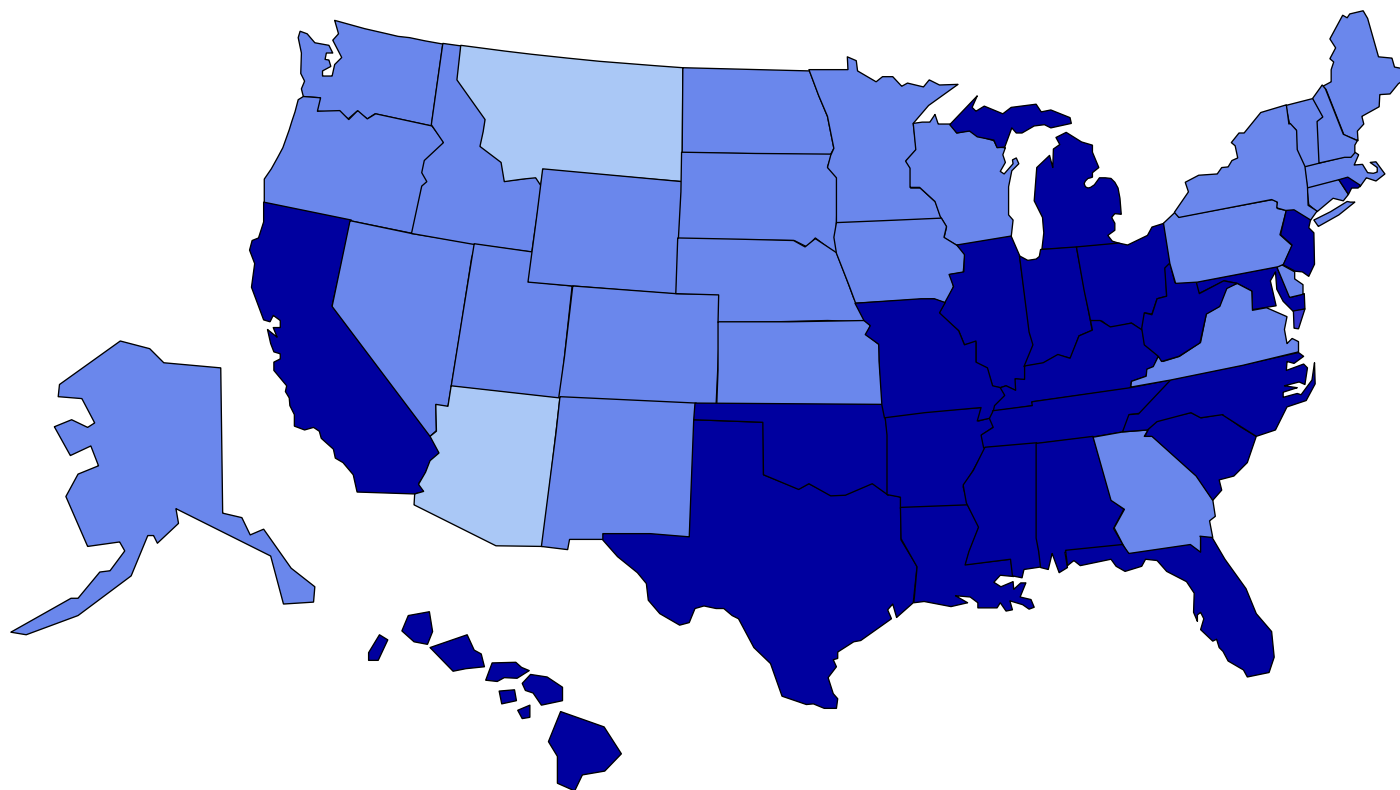
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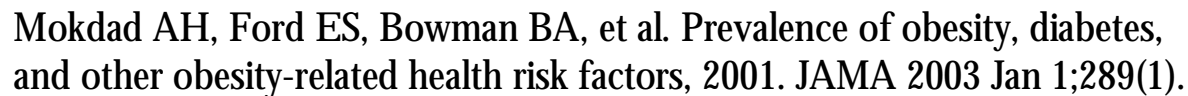
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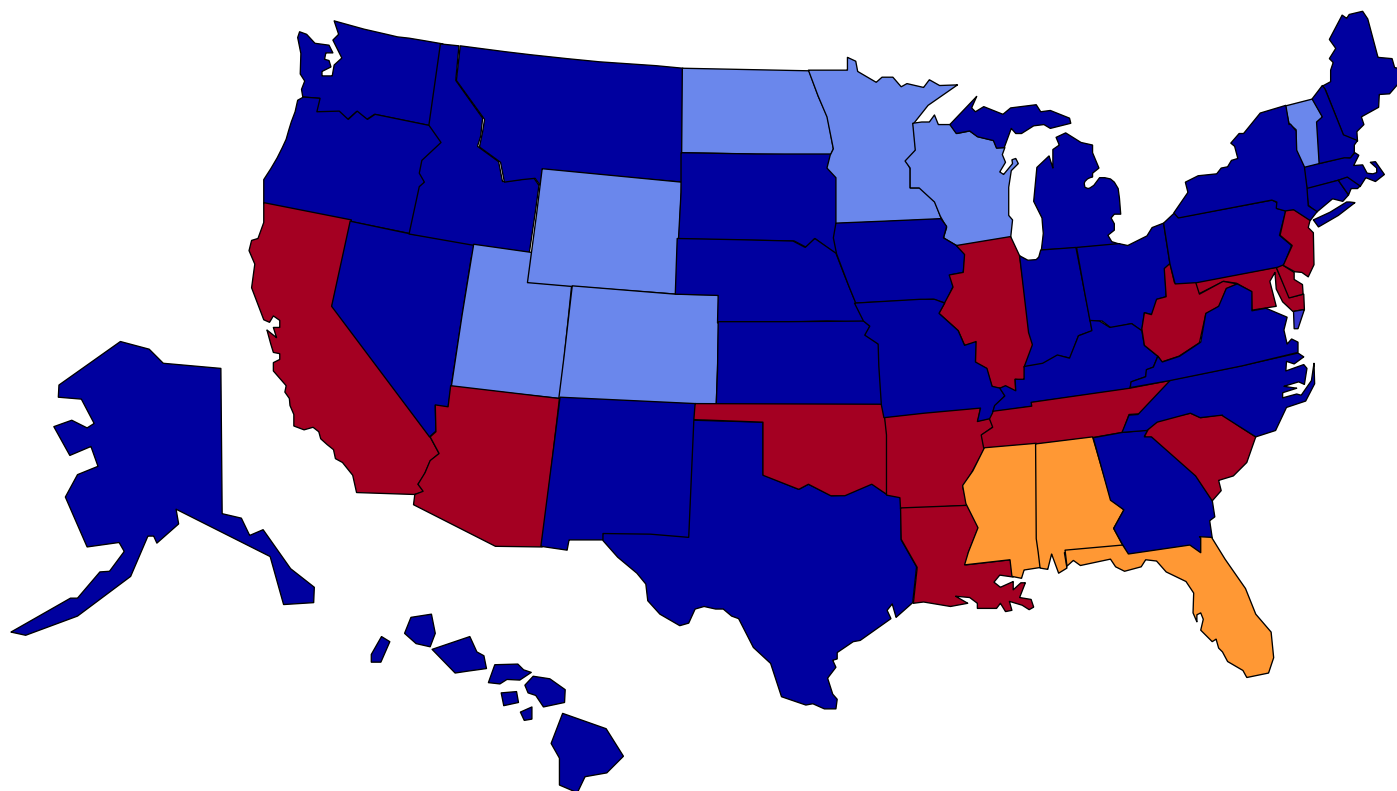


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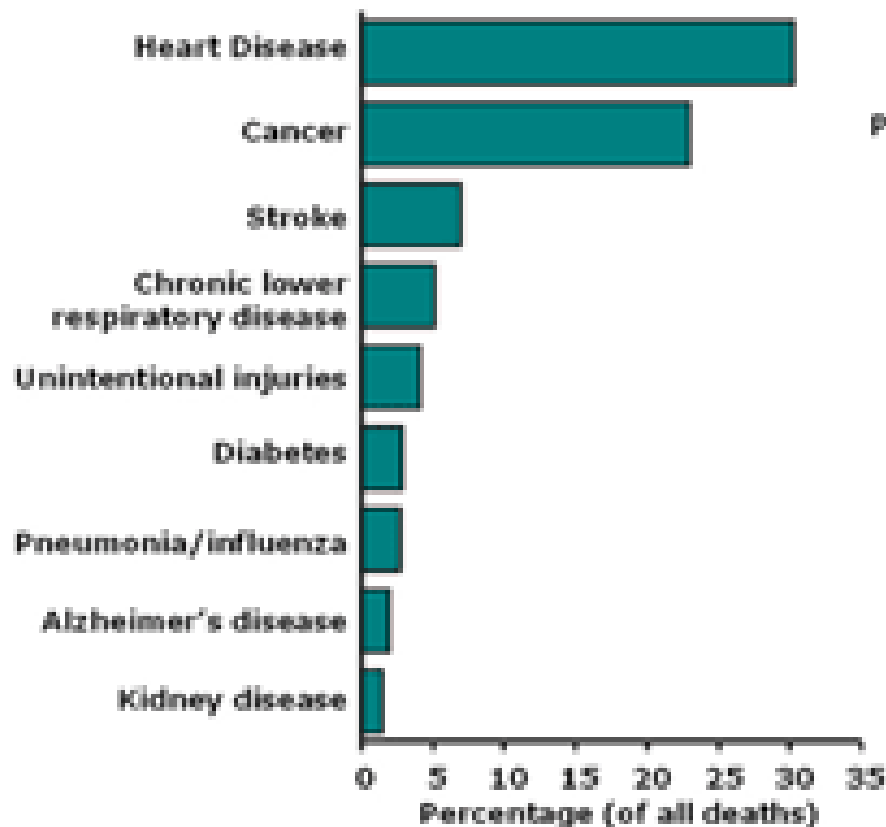
Diabetes and Gestational Diabetes Trends Among Adults in the U.S., BRFSS 2001



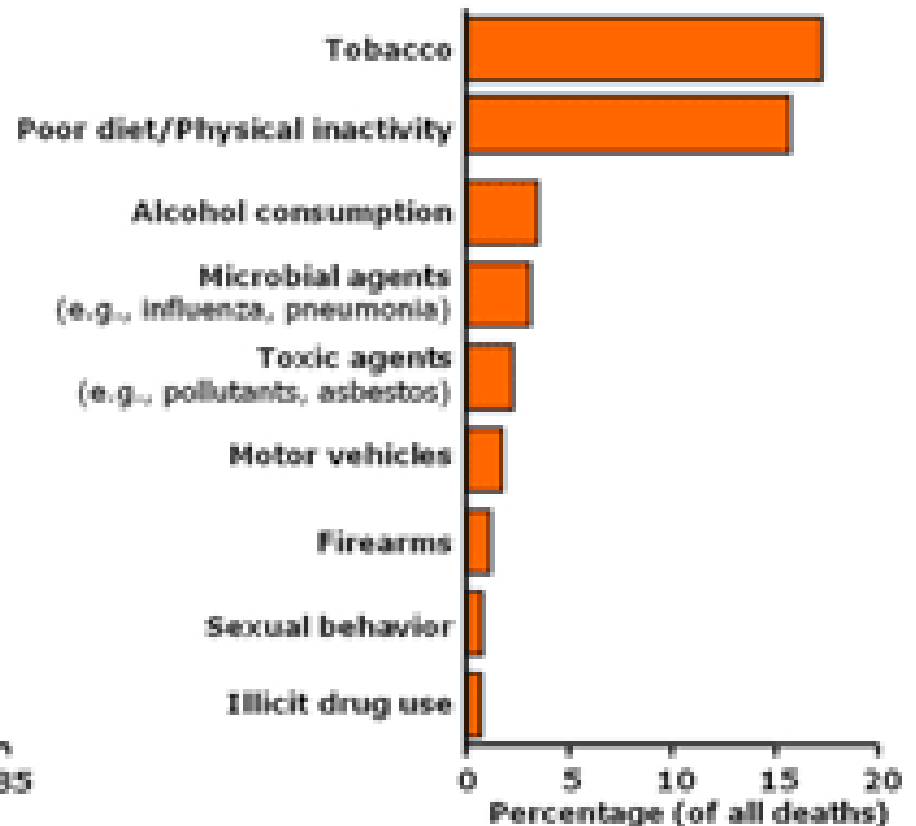
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Leading Causes of Death*
United States, 2000



Actual Causes of Death†
United States, 2000



* Miniño AM, Arias E, Kochanek KD, Murphy SL, Smith BL. Deaths: final data for 2000. National Vital Statistics Reports 2002; 50(15):1-120.

† Mordred AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. JAMA. 2004;291(10):1238-1246.

Death Certificate Vs Actual Cause of Death US 2000

Diabetes Projected Risks: For Babies Born in 2000

Girls: 38% lifetime risk

- If diabetic before age 40, Lifespan shortened by 14 years (Quality of life by 19 years)

Boys: 33% lifetime risk

If diabetic before age 40, Lifespan shortened by 12 years. (Quality of life by 22 years)

V Narayan et al: JAMA 8 Oct 2003



Urban Sprawl, Physical Activity, Obesity, and Morbidity

“Those living in Sprawling counties were likely to walk less ($p=.004$), weigh more ($p<.001$), and have a greater prevalence of hypertension ($p=.018$) than those living in compact counties.” (average six pound difference)

Ewing R et al: American Journal of Health Promotion
18 (1) Sept/Oct 2003

Exercise Levels and Environments

Setting	Increase
• Indoor or Outdoor Place to Exercise	85%
• Walking or Jogging Trail	55%
• Park	95%
• Enjoyable Scenery	45%

Compares (SES adjusted)
Exercise Levels by Subjects'
Perception of Environment

Brownson, R.C., Baker, E.A.,
Housemann, R.A., et. al.
(2001)



CURRENTS

Stephen Treffinger



Drawings by Stubbins Associates. Top right, photograph by Turi Bokus & Associates Architects



ARCHITECTURE

Alchemy Will Turn a Candy Factory Into Biotech Offices

Candy hearts will soon be replaced by cancer drugs. The 500,000-square-foot landmark Necco factory building (top right) in Cambridge, Mass., is changing occupants. Necco has moved its operations to Revere, Mass., and the old building, from 1927, will become a state-of-the-art biotech laboratory and offices for Novartis, the Swiss drug maker. The Cambridge architecture firm of Stubbins Associates, (617) 481-4438, is in charge of the

conversion, having recently completed a Novartis building near the Massachusetts Institute of Technology. The interior — for 600 scientists, technicians and a support staff — will have a six-story, amoeba-shaped skylight atrium (drawing, above). “The sunlight is a metaphor for enlightenment and discovery,” said Scott Simpson, the principal architect on the project. The open spaces (drawing, above right) and four all-glass elevators will

create an open atmosphere unusual at such labs.

Plasma screens on the walls will show live views of other Novartis facilities, so employees will, for instance, see their colleagues at the company’s headquarters in Basel walking down the hall, too. The idea is to get away from lone scientists holed up in dark labs, as in “The Hulk.” (You see how dangerous that turned out to be.) Mr. Simpson says the challenge was to strike a balance between confidentiality, on the one hand, and collaboration on the other. An inslaid stone model of a DNA strand will run through the ground floor.

“The Idea is to get away from Lone Scientists working in Dark Labs.”

Solutions

- Importance of School Siting

Pre-1940 Schools



Credit: Manitovic Public School District



Schools with Lowest
Rates of “Sick Building
Syndrome Complaints

Credit: Hummel Architects, Boise, ID

- “...students have better attendance, are less likely to drop out, exhibit fewer discipline problems, and perform better when attending a smaller high school.”



Credit: Constance E. Beaumant, NTHP

Secretary of Education Richard Riley Oct 4, 2000

Solutions

- Schools
- Awareness in Political Decisions

Community Policing

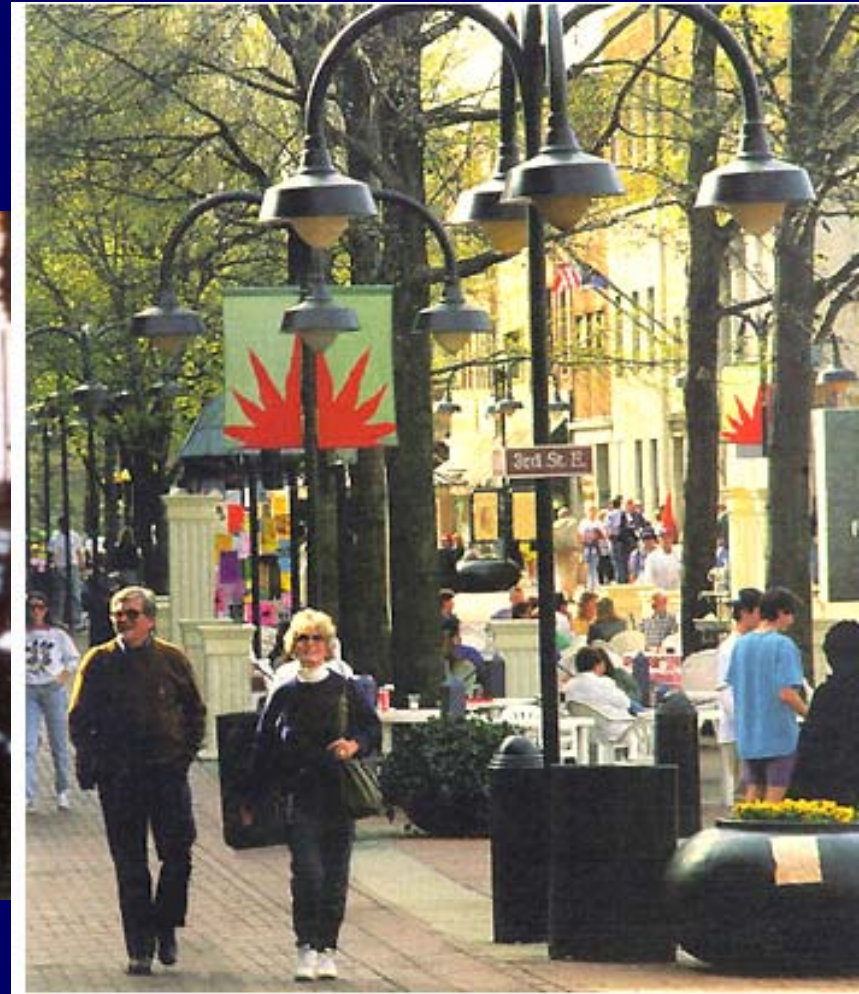


Document Past Successes: Public is aware we need to walk

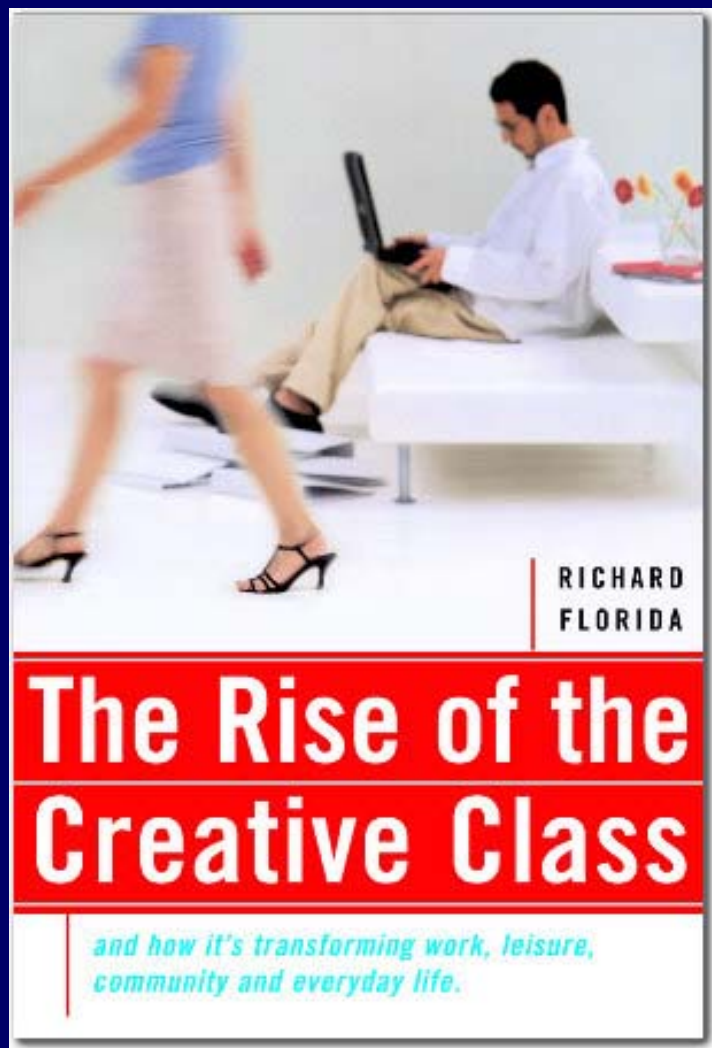
Charlottesville, Virginia Downtown Corridor



East Main Street 1973



Pedestrian Mall 2002



Why Do Populations Migrate and Coalesce? Lessons from Austin, Seattle, San Francisco Area and other cities. Technology was not the Driving Force, *Creativity* was!



Dreary Cities Will Die, Vibrant Cities attract more Life, Lives and Prosperity

Solutions

- Schools
- Awareness in Political Decisions
- Awareness in Environmental Decisions

NYC has 14,000 Vacant Land Parcels: 4000 are Brownfields

The Need to Reclaim Wasted Urban Land

- Brownfields are usually contaminated industrial sites.
- Development is hindered by legal, zoning, sometimes health issues
- Often urban with Infrastructure in place
- Importance of Public Health Input

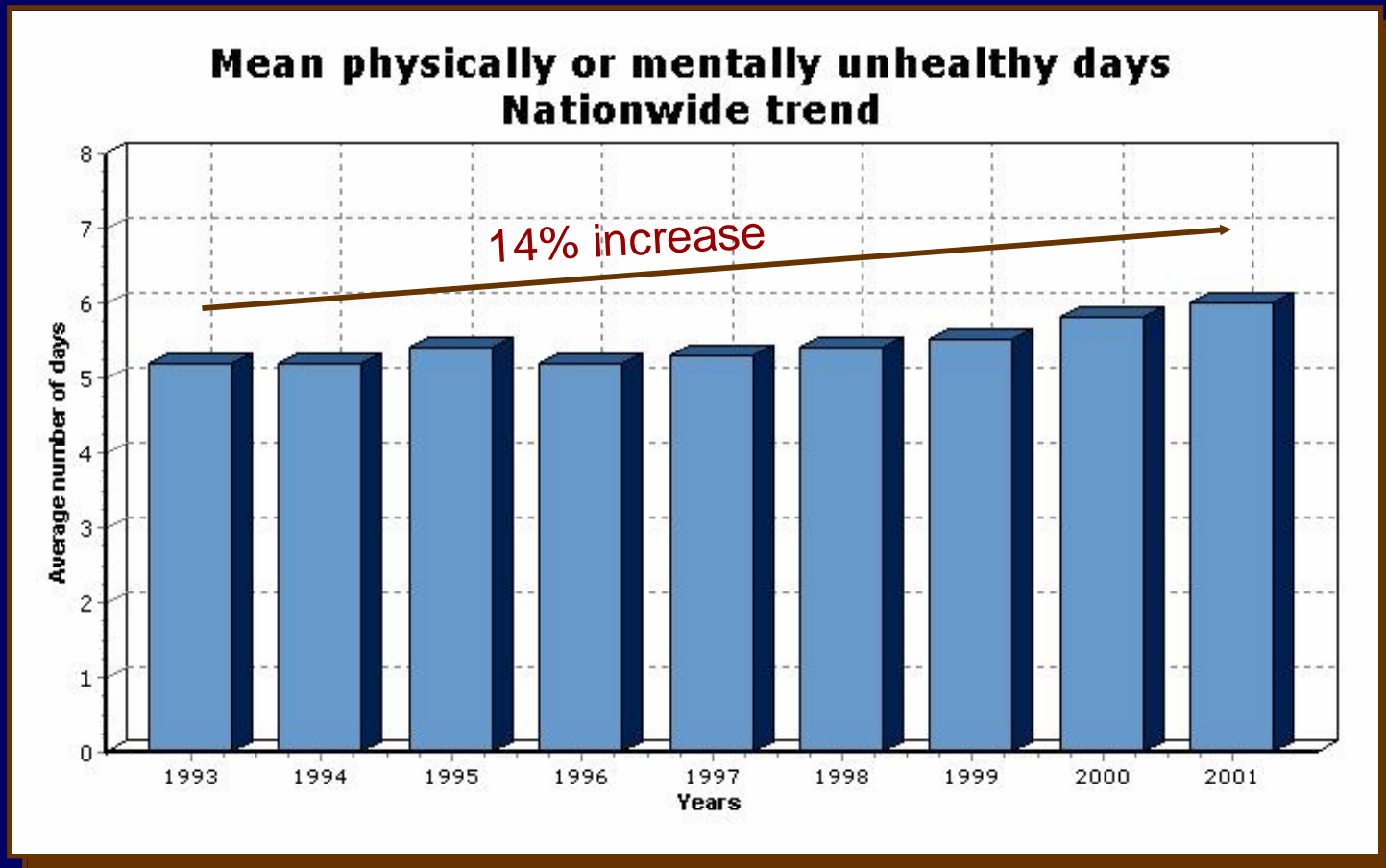


Solutions

- Schools
- Awareness in Political Decisions
- Awareness in Environmental Decisions
- Awareness in the Health Community

Average number of unhealthy days per month

Quality of Life Prevalence Data



Source: Centers for Disease Control and Prevention. Health-related quality of life: prevalence data. National Center for Chronic Disease Prevention and Health Promotion, 2003. Accessed March 21 at <<http://apps.nccd.cdc.gov/HRQOL/>>.

Awareness in the Health Community

Health and the Environment in the Southeastern United States

REBUILDING THE UNITY

Workshop
Summary

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

VIEWPOINT

Urban Sprawl and Public Health

Howard Frumkin, MD, DrPH*

When regular steam ferry service between Brooklyn and Manhattan began in 1814, the first commuter suburb became possible.¹ Suburbs continued to develop slowly but steadily during the 19th and early 20th centuries, thanks to transportation advances such as commuter trains and streetcars, the innovations of early real estate developers, and the urge to live in pastoral tranquility rather than in urban squalor. As automobile ownership became widespread starting in the 1920s, suburban growth continued, a trend that accelerated greatly during the second half of the 20th century. One in two Americans now lives in the suburbs.²

In recent years, the rapid expansion of metropolitan areas has been termed "urban sprawl"—referring to a complex pattern of land use, transportation, and social and economic development. As cities extend into rural areas, large

tracts of land are developed in a "leapfrog," low-density pattern. Different land uses—housing, retail stores, offices, industry, recreational facilities, and public spaces such as parks—are kept separate from each other, with the separation enforced by both custom and zoning laws. Extensive roads need to be constructed; for suburban dwellers, most trips, even to buy a newspaper or a quart of milk, require driving a car. Newly built suburbs are relatively homogeneous in both human and architectural terms, compared with the diversity found in traditional urban or small town settings. With the expansion of suburbs, capital investment and economic opportunity shift from the center to the periphery. Regional planning and coordination are relatively weak.³⁻⁷

Clearly, the move to the suburbs reflects a lifestyle preference shared by many Americans. Such a major shift in the nation's de-



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Volume 2 Issue 1

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- 25 Transportation: What's Health Got To Do With It?



Land Use and Public Health

By Robert Glendon, PhD, Director of Planning and Special Services, Ingham County (MI) Health Department

The student population at a university in Lansing, Michigan has grown over the years. Many students live in dorms, but an increasing number live in the nearby neighborhoods and permanent residents claim it is getting congested near campus. Recently, a private company built two housing complexes for students on the north side of the city, just over the county line. Over 2,000 students moved into the apartments. Yet the main commuting route between the new housing and campus was inadequate: there were no bike paths or sidewalks between campus and the apartments. A car struck two coeds walking on the road to campus one evening. One was killed and the other was severely injured.

Across town, a large apartment complex was constructed near an established road. The road did not have sidewalks and none were installed with the new housing. A car struck and killed the mother of five children as she walked on the shoulder of the road near the complex.

In yet another situation, a youth sport complex was constructed without installing sidewalks in the area. A car killed two young boys walking home from the complex on the side of the road.

Are these chance accidents, or were these tragedies caused by the way we design our communities? And if the design of our communities is at fault, by what means can public health address the issue? The Ingham County Health Department has initiated

Continued on page 2

Smart Growth: Protecting Community Environmental Quality

By Geoffrey Anderson, Director, Development, Community, and Environment Division, U.S. Environmental Protection Agency

During the past decade, smart growth has emerged as a powerful strategy for building community, catalyzing economic development, and protecting the environment. Evidence of this trend is everywhere. Of the 189 ballot initiatives related to state and local conservation considered by voters in 2002, 141 were approved. Newly elected governors in Massachusetts, Pennsylvania, and Michigan appear poised to make smart growth actions a high priority. The *New Urban News*, an industry publication that tracks new projects, reported that smart growth communities and projects were built in record numbers, continuing a five-year upward trend. Cities across Wisconsin, communities in Ohio, and the City of Chicago are re-examining and

Continued on page 6

Land Use and Public Health

National Association of City and County Health Officials

Spring 2003

New Partners



CDC Healthy Places Website

www.cdc.gov/healthyplaces

- Journal of Health Promotion: Full September Issue
- Increased Research Support From NIH
- Active University Planning/Health Collaborations

American Journal of
**PUBLIC
HEALTH**

September 2003

Walking, Bicycling, and Urban Landscapes | Urban Form, Health, and the
Law's Limits | Smart Growth | Success in Promoting Safe Walking and Biking
to School | A Research Agenda for Community Design, Land Use, and Health |
BUILT ENVIRONMENT AND HEALTH | Does Urban Sprawl Increase Motor Vehicle
Occupant and Pedestrian Deaths? | Linking Housing and Health in Europe



AJPH


**Built Environment
and Health**

September, 2003



Urban Sprawl and Public Health

DESIGNING, PLANNING, AND BUILDING
FOR HEALTHY COMMUNITIES



Howard Frumkin,
Lawrence Frank
and Richard Jackson

Solutions

- Schools
- Awareness in Political Decisions
- Awareness in Environmental Decisions
- Awareness in the Health Community
- Awareness of the Public—How it is is not
How it Has to Be.

Improved opportunities for walking and jogging



Boyle Heights, California
East Los Angeles



Improved opportunities for walking and jogging

Boyle Heights, California

- ◆ Small, densely populated, predominantly Latino urban community
- ◆ Evergreen Cemetery is one of the area's main green spaces
- ◆ Traffic-related deaths and hospitalizations in Boyle Heights far exceed CA rates



Improved opportunities for walking and jogging

Boyle Heights, California

- A local coalition established a rubberized jogging path around the cemetery
- More than 1,000 people use the new path
- Nearness to walking paths appears to have a significant impact on physical activity for adults.



Improved opportunities for walking and jogging

Boyle Heights, California

“Small things like the jogging path make a huge difference in how community residents see themselves and the community.”

-Community Advocate